



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 BLACK

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100 - K**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza., 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Hazard statements

: Danger
: H315: Causes skin irritation.
: H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H361: Suspected of damaging fertility or the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements



General	: P103:Read carefully and follow all instructions. P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	: P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	: P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	: P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	: P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: 2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Neopentyl Propoxylate Diacrylate Glycerol, propoxylated, esters with acrylic acid hexamethylene diacrylate
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<u>Special packaging requirements</u>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 10 - <= 24	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 10	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - <= 0,38	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]

See Section 16 for the full text of the H statements declared above.



There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation | : | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- | | | |
|--------------------|---|--|
| Eye contact | : | Adverse symptoms may include the following: pain, watering, redness |
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations |



- | | | |
|---------------------|---|---|
| Skin contact | : | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | : | Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations |

4.3 Indication of any immediate medical attention and special treatment needed

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|----------------------------|---|---|
| Notes to physician | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

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|---------------------------------------|---|---|
| Suitable extinguishing media | : | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : | None known. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|---|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | : | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides |

5.3 Advice for firefighters

- | | | |
|---|---|---|
| Special protective actions for fire-fighters | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|---|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

- | | | |
|--------------------------------------|---|--|
| 6.2 Environmental precautions | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
|--------------------------------------|---|--|

6.3 Methods and materials for containment and cleaning up



- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200 kg	500 kg

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic

2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic

	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before



Eye/face protection	reusing. Ensure that eyewash stations and safety showers are close to the workstation location. : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Black.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 132,00 °C Not available.

Flammability	: Not available.
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Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
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Flash point	: Not Measured. Flashpoint is estimated to be >93°C (>200°F).
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Auto-ignition temperature	:
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Decomposition temperature	: Not available.
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pH	: Product is non-polar/aprotic.
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Viscosity	:	Dynamic : Not available. Kinematic : Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,04
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	1,65 %(m)

Particle characteristics

Median particle size	:	Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-

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	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 BLACK	5748,5 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-
hexamethylene diacrylate	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity



Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : Suspected of damaging fertility or the unborn child.



11.2. Information on other hazards

- 11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low
hexamethylene diacrylate	2,81	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the

Hazardous waste

- sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal

- The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

- This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9  	9  	9  	9  
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

- This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- Tunnel code (-)**

ADN

- This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

- This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

- This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general



provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 BLACK	100	3

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category



E2

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2



None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.



H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 07.08.2024
Date of issue/ Date of revision : 15.07.2024
Date of previous issue : 09.02.2024
Version : 5.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

Colibri 5100 CYAN

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100- C**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza, 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Hazard statements

: Danger
: H315: Causes skin irritation.
: H317: May cause an allergic skin reaction.
: H318: Causes serious eye damage.
: H335: May cause respiratory irritation.
: H361: Suspected of damaging fertility or the unborn child.
: H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements

General

: P103: Read carefully and follow all instructions.



		P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	:	P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	:	P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	:	P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	:	2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Neopentyl Propoxylate Diacrylate hexamethylene diacrylate Glycerol, propoxylated, esters with acrylic acid
Supplemental label elements	:	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
<u>Special packaging requirements</u>		
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 25 - <= 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 10	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29,N30,N31,N32]cuprate(1-), compound with dodecylamine (1:1)	EC : 277-475-8 CAS : 73455-75-1	> 0 - <= 0,3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]



See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation | : | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Skin contact | : | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- | | | |
|--------------------|---|---|
| Eye contact | : | Adverse symptoms may include the following: pain, watering, redness |
|--------------------|---|---|



- | | | |
|---------------------|---|---|
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Skin contact | : | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | : | Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|----------------------------|---|---|
| Notes to physician | : | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : | None known. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|--|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | : | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, phosphorus oxides, metal oxide/oxides |

5.3 Advice for firefighters

- | | | |
|---|---|---|
| Special protective actions for fire-fighters | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|---|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

- | | | |
|--------------------------------------|---|--|
| 6.2 Environmental precautions | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
|--------------------------------------|---|--|



6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

- Recommendations** : Not available.



Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic

2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic

	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
hydrogen [29H,31H-phthalocyaninesulphonato(3-)-N29,N30,N31,N32]cuprate(1-), compound with dodecylamine (1:1)	DNEL	Long term Oral	0,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	10 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0,87 mg/m ³	General population	Systemic
	DNEL	Long term Oral	0,5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	10 mg/kg bw/day	Workers	Systemic



	DNEL	Long term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0,87 mg/m ³	General population	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties



Appearance

Physical state : liquid
 Color : Blue.
 Odor : Not available.
 Odor threshold : Not available.
 Melting point/freezing point : Not available.
 Initial boiling point and boiling range : 132,00 °C
 Not available.

Flammability : Not available.

Lower and upper explosion limit : **Lower:** Not available.
Upper: Not available.

Flash point : **Not Measured. Flashpoint is estimated to be >93°C (>200°F).**

Auto-ignition temperature :

Decomposition temperature : Not available.

pH : Product is non-polar/aprotic.

Viscosity : **Dynamic** : Not available.
Kinematic : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapor pressure :

Relative density : 1,03

Vapor density : Not available.

Explosive properties : Not available.

Oxidizing properties : Not available.

VOC : 1,64 %(m)

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-
	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 CYAN	5748,5 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-
hexamethylene diacrylate	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary



Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure



Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : Suspected of damaging fertility or the unborn child.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
hexamethylene diacrylate	2,81	-	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9 	9 	9 	9
14.4 Packing group	III	III	III	III



14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.
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Additional information

ADR/RID

- : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Tunnel code (-)

ADN

- : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

- : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

- : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user

- : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

- : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 CYAN	100	3

No listed substance

Other EU regulations

- Industrial emissions (integrated pollution prevention and control) - Air** : Not listed



Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E1

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.



Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	At least one component is not listed in DSL but all such components are listed in NDSL.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	Not determined.
Taiwan	:	All components are listed or exempted.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

- 15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Safety Data Sheet



Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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 Version : 5.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 LT.CYAN

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100 LT. C**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza., 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Hazard statements

- : Danger
- : H315: Causes skin irritation.
- : H317: May cause an allergic skin reaction.
- : H318: Causes serious eye damage.
- : H335: May cause respiratory irritation.
- : H361: Suspected of damaging fertility or the unborn child.
- : H410: Very toxic to aquatic life with long lasting effects.



Precautionary statements

General	: P103:Read carefully and follow all instructions. P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	: P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	: P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	: P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	: P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: 2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Neopentyl Propoxylate Diacrylate hexamethylene diacrylate Glycerol, propoxylated, esters with acrylic acid
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<u>Special packaging requirements</u>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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1907/2006, Annex XIII

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 25 - <= 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 3	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]

See Section 16 for the full text of the H statements declared above.



There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation | : | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- | | | |
|--------------------|---|--|
| Eye contact | : | Adverse symptoms may include the following: pain, watering, redness |
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations |



- | | | |
|---------------------|---|---|
| Skin contact | : | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | : | Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|----------------------------|---|---|
| Notes to physician | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : | None known. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|--|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | : | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, phosphorus oxides |

5.3 Advice for firefighters

- | | | |
|---|---|---|
| Special protective actions for fire-fighters | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|---|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

- | | | |
|--------------------------------------|---|--|
| 6.2 Environmental precautions | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
|--------------------------------------|---|--|

6.3 Methods and materials for containment and cleaning up



- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic

2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic

	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before



Eye/face protection	: reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Skin protection	
Hand protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Body protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Other skin protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Blue.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 132,00 °C Not available.
Flammability	: Not available.
Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
Flash point	: Not Measured. Flashpoint is estimated to be >93°C (>200°F).
Auto-ignition temperature	:
Decomposition temperature	: Not available.
pH	: Product is non-polar/aprotic.



Viscosity	:	Dynamic : Not available. Kinematic : Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,03
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	1,64 %(m)

Particle characteristics

Median particle size	:	Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-

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	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 LT.CYAN	5748,5 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-
hexamethylene diacrylate	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

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Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.



11.2. Information on other hazards

- 11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol			
	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
hexamethylene diacrylate	2,81	-	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the

Hazardous waste

- sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal

- The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

- This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general

provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 LT.CYAN	100	3

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category



E1

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	All components are listed or exempted.
Canada	:	At least one component is not listed in DSL but all such components are listed in NDSL.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	Not determined.
Taiwan	:	All components are listed or exempted.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment	:	This product contains substances for which Chemical Safety Assessments are still required.
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SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements



H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Date of previous issue : 09.02.2024
Version : 3.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 LT.MAGENTA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100- LT. M**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code:2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza,, 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Hazard statements

: Danger
: H315:Causes skin irritation.
: H317:May cause an allergic skin reaction.
H318:Causes serious eye damage.
H335:May cause respiratory irritation.
H361:Suspected of damaging fertility or the unborn child.
H410:Very toxic to aquatic life with long lasting effects.

Precautionary statements

General

: P103:Read carefully and follow all instructions.



		P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	:	P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	:	P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	:	P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	:	P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	:	2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Neopentyl Propoxylate Diacrylate hexamethylene diacrylate Glycerol, propoxylated, esters with acrylic acid
Supplemental label elements	:	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
<u>Special packaging requirements</u>		
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	:	Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 25 - <= 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 3	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, 3-(dimethylamino)propyl imide, imide with polyethylene-	REACH#: Exempt CAS : 1431957-88-8	> 0 - <= 0,3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]



polypropylene glycol 2-aminopropyl Me ether, 2-[(C10-16-alkyloxy)methyl]oxirane -quaternized, benzoates (salts)					
---	--	--	--	--	--

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation | : | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed



Over-exposure signs/symptoms

- | | | |
|---------------------|---|---|
| Eye contact | : | Adverse symptoms may include the following: pain, watering, redness |
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Skin contact | : | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | : | Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|----------------------------|---|---|
| Notes to physician | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : | None known. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|--|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | : | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides |

5.3 Advice for firefighters

- | | | |
|---|---|---|
| Special protective actions for fire-fighters | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|---|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

6.2 Environmental precautions

- | | |
|---|--|
| : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
|---|--|



6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

- Recommendations** : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic

	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local

	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not



Eye/face protection	be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Red.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 132,00 °C Not available.

Flammability : Not available.

Lower and upper explosion limit : **Lower:** Not available.
Upper: Not available.

Flash point : **Not Measured. Flashpoint is estimated to be >93°C (>200°F).**

Auto-ignition temperature :

Decomposition temperature : Not available.

pH : Product is non-polar/aprotic.



Viscosity	:	Dynamic : Not available. Kinematic : Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,03
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	1,64 %(m)

Particle characteristics

Median particle size	:	Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-

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	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 LT.MAGENTA	5748,5 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-
hexamethylene diacrylate	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity



Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : Suspected of damaging fertility or the unborn child.



11.2. Information on other hazards

- 11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
hexamethylene diacrylate	2,81	-	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

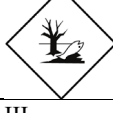
Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9  	9  	9  	9  
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN

: This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.



14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 LT.MAGENTA	100	3

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E1

National regulations



International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.



Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.



H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

Date of printing : 07.08.2024
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Date of previous issue : 09.02.2024
Version : 3.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 MAGENTA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100- M**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza,, 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word :

Hazard statements :

Danger

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H361: Suspected of damaging fertility or the unborn child.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements



General	: P103:Read carefully and follow all instructions. P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	: P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	: P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	: P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	: P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: 2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- Neopentyl Propoxylate Diacrylate diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Glycerol, propoxylated, esters with acrylic acid hexamethylene diacrylate
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
Special packaging requirements	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Safety Data Sheet



Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 25 - <= 50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 10	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
2,5-Furandione, telomer with ethenylbenzene and (1-methylethyl)benzene, 3-(dimethylamino)propyl imide, imide with polyethylene-polypropylene glycol 2-aminopropyl Me ether, 2-[(C10-16-alkyloxy)methyl]oxirane-quaternized, benzoates (salts)	REACH#: Exempt CAS : 1431957-88-8	> 0 - <= 3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]



Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - <= 0,3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.



- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, phosphorus oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected



personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to

prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

Recommendations : Not available.
Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic

	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic

2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic



PNECs

No PNECs available.

8.2 Exposure controls

- | | | |
|--|---|--|
| Appropriate engineering controls | : | Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. |
|
<u>Individual protection measures</u> | | |
| Hygiene measures | : | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. |
|
<u>Skin protection</u> | | |
| Hand protection | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |
| Body protection | : | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Other skin protection | : | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory protection | : | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. |
| Environmental exposure controls | : | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- | | | |
|-------------------------------------|---|----------------|
| Physical state | : | liquid |
| Color | : | Red. |
| Odor | : | Not available. |
| Odor threshold | : | Not available. |
| Melting point/freezing point | : | Not available. |



Initial boiling point and boiling range	: 132,00 °C Not available.
Flammability	: Not available.
Lower and upper explosion limit	: Lower: Not available. Upper: Not available.
Flash point	: Not Measured. Flashpoint is estimated to be >93°C (>200°F).
Auto-ignition temperature	:
Decomposition temperature	: Not available.
pH	: Product is non-polar/aprotic.
Viscosity	: Dynamic : Not available. Kinematic : Not available.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.
Vapor pressure	:
Relative density	: 1,04
Vapor density	: Not available.
Explosive properties	: Not available.
Oxidizing properties	: Not available.
VOC	: 1,48 %(m)

Particle characteristics

Median particle size	: Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: No specific data.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-
	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 MAGENTA	5790,7 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
hexamethylene diacrylate	Eyes - Moderate irritant	Rabbit	-		-
	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization



Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.



Long term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
 General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : Suspected of damaging fertility or the unborn child.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
 11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low
hexamethylene diacrylate	2,81	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
 Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.
 12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9 	9 	9 	9
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID

- : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.



Tunnel code (-)

- ADN** : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
- 14.6 Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Maritime transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 MAGENTA	100	3

No listed substance

Other EU regulations

- Industrial emissions (integrated pollution prevention and control) - Air** : Not listed
- Industrial emissions (integrated pollution prevention and control) - Water** : Not listed
- Explosive precursors** : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

**Prior Informed Consent (PIC) (649/2012/EU)**

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E1

National regulations**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals****Chemical Weapons Convention List Schedule I Chemicals**

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants**Annex A - Elimination - Production**

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)**Rotterdam Convention on Prior Informed Consent (PIC) - Industrial**

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method

Safety Data Sheet



Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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 Version : 8.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 WHITE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100- WH**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza, 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302
Skin Irrit. 2, H315
Eye Dam. 1, H318
Skin Sens. 1, H317
Repr. 2, H361
STOT RE 2, H373
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Hazard statements

: Danger
: H302: Harmful if swallowed.
: H315: Causes skin irritation.
: H317: May cause an allergic skin reaction.
: H318: Causes serious eye damage.
: H361: Suspected of damaging fertility or the unborn child.
: H373: May cause damage to organs through prolonged or repeated exposure.
: H411: Toxic to aquatic life with long lasting effects.



Precautionary statements

General	: P103:Read carefully and follow all instructions. P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	: P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P273:Avoid release to the environment. P260:Do not breathe vapor. P270:Do not eat, drink or smoke when using this product. P264:Wash thoroughly after handling.
Response	: P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	: P405:Store locked up.
Disposal	: P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: 2-Propen-1-one, 1-(4-morpholinyl)- 2-phenoxyethyl acrylate Isobornyl acrylate diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 3-[2,2-dimethyl-1-oxo-3-[(1-oxoallyl)oxy]propoxy]-2,2-dimethylpropyl acrylate
Supplemental label elements	: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<u>Special packaging requirements</u>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.



SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	>= 25 - <= 50	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 10 - < 20	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
3-[2,2-dimethyl-1-oxo-3-[(1-oxoallyl)oxy]propoxy]-2,2-dimethylpropyl acrylate	EC : 250-072-4 CAS : 30145-51-8	> 0 - <= 5	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]

See Section 16 for the full text of the H statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to



Inhalation	rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain, watering, redness
Inhalation	: Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact	: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion	: Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.



5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, phosphorus oxides, metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage



The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200 kg	500 kg

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

- Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN

14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic

	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	2,41 mg/m³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m³	General population	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures



Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
<u>Skin protection</u>		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	liquid
Color	:	White.
Odor	:	Not available.
Odor threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	132,00 - 158,00 °C Not available.

Flammability : Not available.

Lower and upper explosion limit : **Lower:** Not available.
Upper: Not available.

Flash point : **Not Measured. Flashpoint is estimated to be >93°C (>200°F).**

Auto-ignition temperature :



Decomposition temperature	:	Not available.
pH	:	Product is non-polar/aprotic.
Viscosity	:	Dynamic : Not available. Kinematic : Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,15
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	1,14 %(m)

Particle characteristics

Median particle size	:	Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				

Safety Data Sheet



	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				
	LD50 Oral	Rat	1.260 mg/kg	-
	LD50 Dermal	Rat	14.422 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 WHITE	1929 mg/kg	N/A	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary : Not available.

Reproductive toxicity



Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
Inhalation : Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations
Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.



11.2. Information on other hazards

- 11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol			
	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.

12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9  	9  	9  	9  
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 WHITE	100	3

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E2

National regulations



International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.



Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H302	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.



H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Date of previous issue : 09.02.2024
Version : 5.0

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Czech Republic
SAFETY DATA SHEET

COLIBRI 5100 YELLOW

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: **Colibri 5100- Y**

Relevant identified uses of the substance or mixture and uses advised against:

Material of Use: Industrial applications: Inkjet ink for drop-on-demand digital printing process.

1.2 Details of the supplier of the safety data sheet

Company: Colibri Digital Limited

Company code: 2875806 registered in Hong Kong

Company address: Suite No. A, 11/F., Ritz Plaza,, 122 Austin Road, Tsimshatsui, Kowloon, Hong Kong

香港九龍尖沙咀柯士甸道122號麗斯中心11樓A室

Phone: +852 8120 4409, E-mail: hk@colibridigital.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 2, H361

STOT SE 3, H335 (Respiratory tract irritation)

Aquatic Acute 1, H400

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word :

Hazard statements :

Danger

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H361: Suspected of damaging fertility or the unborn child.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements



General	: P103:Read carefully and follow all instructions. P102:Keep out of reach of children. P101:If medical advice is needed, have product container or label at hand.
Prevention	: P201:Obtain special instructions before use. P280:Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment. P261:Avoid breathing vapor. P264:Wash thoroughly after handling.
Response	: P391:Collect spillage. P308:IF exposed or concerned: P308 + P313:Get medical advice or attention. P304:IF INHALED: P304 + P312:Call a POISON CENTER or doctor if you feel unwell. P362 + P364:Take off contaminated clothing and wash it before reuse. P302:IF ON SKIN: P302 + P352:Wash with plenty of water. P333:If skin irritation or rash occurs: P333 + P313:Get medical advice or attention. P305:IF IN EYES: P305 + P351 + P338:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305 + P310:Immediately call a POISON CENTER or doctor.
Storage	: P405:Store locked up. P403 + P233:Store in a well-ventilated place. Keep container tightly closed.
Disposal	: P501:Dispose of contents and container in accordance with all local, regional, national and international regulations.
Contains	: 2-phenoxyethyl acrylate Isobornyl acrylate 2-Propen-1-one, 1-(4-morpholinyl)- Neopentyl Propoxylate Diacrylate diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide hexamethylene diacrylate Glycerol, propoxylated, esters with acrylic acid
Supplemental label elements	: Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<u>Special packaging requirements</u>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Yes, applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2-phenoxyethyl acrylate	REACH#: 01-2119980532-35-XXXX EC : 256-360-6 CAS : 48145-04-6	>= 25 - <= 50	Skin Sens. 1, H317 Repr. 2, H361d Aquatic Chronic 2, H411	-	[1]
Isobornyl acrylate	REACH#: 05-2117976668-18-XXXX EC : 227-561-6 CAS : 5888-33-5	>= 10 - < 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 (Respiratory tract irritation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
2-Propen-1-one, 1-(4-morpholinyl)-	CAS : 5117-12-4 Index: 613-222-00-3	> 0 - < 10	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373	ATE [Oral] = 588 mg/kg	[1]
Neopentyl Propoxylate Diacrylate	REACH#: 01-2119970213-43-XXXX CAS : 84170-74-1	> 0 - <= 10	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	REACH#: 01-2119972295-29-XXXX EC : 278-355-8 CAS : 75980-60-8	> 0 - <= 10	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Chronic 2, H411	-	[1]
2-phenoxyethanol	EC : 204-589-7 CAS : 122-99-6 Index: 603-098-00-9	> 0 - <= 3	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1.260 mg/kg	[1]
hexamethylene diacrylate	REACH#: 01-2119484737-22-XXXX EC : 235-921-9 CAS : 13048-33-4 Index: 607-109-00-8	> 0 - < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 1	[1]
Glycerol, propoxylated, esters with acrylic acid	REACH#: 01-2119487948-12-XXXX CAS : 52408-84-1	> 0 - < 1	Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]

See Section 16 for the full text of the H statements declared above.



There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-----------------------------------|---|---|
| Eye contact | : | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. |
| Inhalation | : | Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : | Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : | Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders | : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- | | | |
|--------------------|---|--|
| Eye contact | : | Adverse symptoms may include the following: pain, watering, redness |
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations |



- | | | |
|---------------------|---|---|
| Skin contact | : | Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | : | Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations |

4.3 Indication of any immediate medical attention and special treatment needed

- | | | |
|----------------------------|---|---|
| Notes to physician | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : | None known. |

5.2 Special hazards arising from the substance or mixture

- | | | |
|--|---|--|
| Hazards from the substance or mixture | : | In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products | : | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides |

5.3 Advice for firefighters

- | | | |
|---|---|---|
| Special protective actions for fire-fighters | : | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|---|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

- | | | |
|--------------------------------------|---|--|
| 6.2 Environmental precautions | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
|--------------------------------------|---|--|

6.3 Methods and materials for containment and cleaning up



- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 kg	200 kg

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2-phenoxyethyl acrylate	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3,5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	77 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	12 mg/m ³	Workers	Systemic
Isobornyl acrylate	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4,9 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,45 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	1,39 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0,83 mg/kg bw/day	General population	Systemic

2-Propen-1-one, 1-(4-morpholinyl)-	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	132,24 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	300 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	132,24 mg/m ³	Workers	Systemic
Neopentyl Propoxylate Diacrylate	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	32,9 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	46,7 mg/kg bw/day	Workers	Systemic
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0,145 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	83,3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,822 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0,233 mg/kg bw/day	Workers	Systemic
2-phenoxyethanol	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic

	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Local
	DNEL	Long term Dermal	20,83 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10,42 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	9,23 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	5,7 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2,41 mg/m ³	General population	Systemic
hexamethylene diacrylate	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,66 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	7,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2,77 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2,1 mg/kg bw/day	General population	Systemic
Glycerol, propoxylated, esters with acrylic acid	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2,1 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7,4 mg/m ³	Workers	Systemic

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before



Eye/face protection	reusing. Ensure that eyewash stations and safety showers are close to the workstation location. : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
<u>Skin protection</u>	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: liquid
Color	: Yellow.
Odor	: Not available.
Odor threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 132,00 °C Not available.

Flammability : Not available.

Lower and upper explosion limit : **Lower:** Not available.
Upper: Not available.

Flash point : **Not Measured. Flashpoint is estimated to be >93°C (>200°F).**

Auto-ignition temperature :

Decomposition temperature : Not available.

pH : Product is non-polar/aprotic.



Viscosity	:	Dynamic : Not available. Kinematic : Not available.
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not applicable.
Vapor pressure	:	
Relative density	:	1,02
Vapor density	:	Not available.
Explosive properties	:	Not available.
Oxidizing properties	:	Not available.
VOC	:	1,64 %(m)

Particle characteristics

Median particle size	:	Not applicable.
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SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isobornyl acrylate				
	LD50 Oral	Rat	4.890 mg/kg	-
	LD50 Dermal	Rabbit	5.000 mg/kg	-
2-Propen-1-one, 1-(4-morpholinyl)-				
	LD50 Oral	Rat	588 mg/kg	-
	LC50 Inhalation Vapor	Rat	5.280 mg/l	4 h
	LD50 Dermal	Rat	2.000 mg/kg	-
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	LD50 Oral	Rat	5.000 mg/kg	-
2-phenoxyethanol				

Safety Data Sheet



	LD50 Oral	Rat	1.260 mg/kg	-
	LD50 Dermal	Rat	14.422 mg/kg	-
hexamethylene diacrylate				
	LD50 Oral	Rat	5.000 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral	Dermal	Inhalation (gases)	Inhalation (vapors)	Inhalation (dusts and mists)
LY2 YELLOW	5748,5 mg/kg	N/A	N/A	N/A	N/A
Isobornyl acrylate	4890 mg/kg	5000 mg/kg	N/A	N/A	N/A
2-Propen-1-one, 1-(4-morpholinyl)-	588 mg/kg	N/A	N/A	5280 mg/l	N/A
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5000 mg/kg	N/A	N/A	N/A	N/A
2-phenoxyethanol	1260 mg/kg	14422 mg/kg	N/A	N/A	N/A
hexamethylene diacrylate	5000 mg/kg	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isobornyl acrylate	Eyes - Mild irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
2-phenoxyethanol	Eyes - Severe irritant	Rabbit	-	24 hrs	-
	Skin - Mild irritant	Rabbit	-	24 hrs	-
	Eyes - Moderate irritant	Rabbit	-		-
hexamethylene diacrylate	Skin - Severe irritant	Rabbit	-	24 hrs	-

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.
Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.



Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isobornyl acrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Propen-1-one, 1-(4-morpholinyl)-	Category 2	-	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
 Inhalation : May cause respiratory irritation.
 Skin contact : Causes skin irritation. May cause an allergic skin reaction.
 Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following: pain, watering, redness
 Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal deaths, skeletal malformations
 Skin contact : Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, reduced fetal weight, increase in fetal deaths, skeletal malformations
 Ingestion : Adverse symptoms may include the following: stomach pains, reduced fetal weight, increase in fetal deaths, skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.
 General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
 Carcinogenicity : No known significant effects or critical hazards.



Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : Suspected of damaging fertility or the unborn child.

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties : Not available.
11.2.2 Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-phenoxyethanol	Acute LC50 344 mg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 h

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Propen-1-one, 1-(4-morpholinyl)-	-0,46	-	low
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	53,00 - 72,00	low
2-phenoxyethanol	1,107	0,35	low
hexamethylene diacrylate	2,81	-	low
Glycerol, propoxylated, esters with acrylic acid	2,52	-	low

12.4 Mobility in soil

Soil/water partition coefficient (KOC) : Not available.
Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not available.
12.7 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and

waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)	ENVIRONMENTAL LY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-phenoxyethyl acrylate, Isobornyl acrylate)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5. Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.



IATA : This product is not regulated as a dangerous good when transported in sizes of ≤ 5 L or ≤ 5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

14.6 Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

The following components are listed:

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Toxic to reproduction	Candidate	-	2023-06-14

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
LY2 YELLOW	100	3

No listed substance

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

Persistent Organic Pollutants

None of the components are listed.

Seveso Directive

This product is controlled under the Seveso Directive.



Danger criteria

Category
E1

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

Montreal Protocol

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

Rotterdam Convention on Prior Informed Consent (PIC) - Severely hazardous pesticide

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.



POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Eurasian Economic Union	:	Russian Federation inventory: Not determined.
Japan	:	Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	Not determined.

- 15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H335 (Respiratory tract irritation)	Calculation method
Aquatic Acute 1, H400	Calculation method



Aquatic Chronic 2, H411

Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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