1. Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Trade name: ColibriDigital 1510 Series Ink

1.2 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.

1.3 SDS No.

1.4 Details of the supplier of the safety data sheet

Manufacturer/Supplier: ColibriDigital

2. Hazards identification

2.1 Classification of the mixture

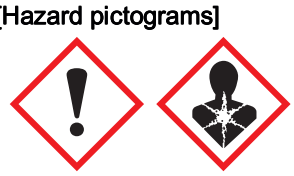
Classification according to GHS

Acute Tox.4: H312 Harmful in contact with skin.
Acute Tox.4: H332 Harmful if inhaled.
Skin Irrit.3: H315 Causes skin irritation.
Repr.1B: H360Df May damage the unborn child. Suspected of damaging fertility.

2.2 Label elements

Labeling according to GHS

[Hazard pictograms]



[Signal word]: Danger

[Hazard statements]

H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H360Df May damage the unborn child. Suspected of damaging fertility.

[Precautionary statements]

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. Composition/information on ingredients

Chemical characterization: Mixture
Ink Jet printing ink in organic solvents.

Ingredients	CAS-No.	EINECS	EU Pre-registration No.	Percent	ClassificationGHS (Rev.5)

Dipropylene Glycol Monomethyl Ether	34590-94-8	252-104-2	Not available for the moment	1%–15%	-
2-Ethoxy Ethyl Ether	112-36-7	203-963-7	Not available for the moment	15%–35%	Skin Irrit.2 H315
Diethylene Glycol Ethyl Methyl Ether	1002-67-1	213-690-5	Not available for the moment	20%–40%	-
Tetraethylene Glycol Dimethyl Ether	143-24-8	205-594-7	Not available for the moment	5%–10%	Repr.1B: H360Df
Ethylene Glycol Monobutyl Ether Acetate	112-07-2	203-933-3	Not available for the moment	10%–30%	Acute Tox 4: H312 Acute Tox 4: H332

4. First aid measures

4.1 Description of first aid measures

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

[Potential acute health effects]
Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

[Over-exposure signs/symptoms]
Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), water-spray.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Use breathing apparatus with independent air supply.
Protective suit.

5.4 Further information

Use water spray to cool unopened containers

5.5 NFPA Ratings:

Health: 2 Flammability: 2 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. Handling and storage

7.1 Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end uses

no data available

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Components	ACGIH: TWA
Ethylene Glycol Monobutyl Ether Acetate	20 ppm

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

[Eye/face protection]

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

[Skin protection]

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

[Body Protection]

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

[Respiratory protection]

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and chemical properties

1	Color	Cyan
2	Odor	Slight odor
3	Boiling point/boiling range of ink	approx. 176 °C or higher
4	Melting Point/Melting Range	No data available
5	Flash point of ink	approx. 70 °C
6	Auto-Ignition Temperature	not below 220 °C
7	Flammability(solid, gas)	Not Applicable
8	Explosive Properties	Lower limits: 0.88 vol% Upper limits: 8.54 vol% (Ethylene Glycol Monobutyl Ether Acetate)
9	Vapour Pressure	No data available
10	Specific Gravity	0.97 ± 0.02 25℃)
11	Solubility	No data available
12	Water solubility	Easily soluble (Diethylene Glycol Ethyl Methyl Ether)
13	Viscosity	9.5 ± 1.0 cps
14	pH	Not applicable

15	Oxidizing properties	No data available
16	Vapor Density	Not Applicable

The Physical and chemical data given in Section 9 are typical values for this product and are not intended to be product specifications.

10. Stability and reactivity

10.1 Reactivity
no data available
10.2 Chemical stability
no data available
10.3 Possibility of hazardous reactions
no data available
10.4 Conditions to avoid
Heat, flames and sparks.
10.5 Incompatible materials
Strong oxidizing agents, Strong bases
10.6 Hazardous decomposition products
Other decomposition products - no data available

11. Toxicological information

11.1 Routes of Overexposure: Eye, skin, inhalation, and oral ingestion
11.2 Health Hazards:
Acute Health Hazards: Overexposure of the eye surface to ink may be mildly irritating. Overexposure of ink contact with the skin may cause irritation and in some people, swelling and redness. Intentional inhalation to ink vapors may result in respiratory tract irritation. Intentional or accidental oral ingestion may cause an upset stomach.
Chronic Health Hazards: No information available
Mugtagenicity: No information available
Carcinogenicity: No information available
11.3 Toxicity:
Acute Toxicity Data:
[Dipropylene Glycol Monomethyl Ether]:
LD50 Oral, rat: 5,130 mg/kg
LD50 Dermal, rabbit: 9,500 mg/kg
[2-Ethoxy Ethyl Ether]:
LD50 Oral, rat: 4,970 mg/kg
LD50 Skin, rabbit: 6,700 µL/kg
Draize test, Eye rabbit: 50 mg Moderate
[Diethylene Glycol Ethyl Methyl Ether]:
LD50 Oral, rat: >6,500mg/kg
LD50 Dermal, rabbit: >7,070mg/kg
[Tetraethylene Glycol Dimethyl Ether]:
LD50 Oral, rat: 5,140 mg/kg
Draize test, Eye rabbit: 500 mg Mild
[Ethylene Glycol Monobutyl Ether Acetate]:
LD50 Oral, rat: 2,400 mg/kg
LD50 Oral, mouse: 3,200 mg/kg
LD50 Skin, rabbit: 1,500 mg/kg
Draize test, Eye rabbit: 500 mg/24H Mild
Inhalation:
Not available
Irritating:
[Diethylene Glycol Ethyl Methyl Ether]:
Eye irritating: Moderate (Draize P.I.I=2.5)
[Ethylene Glycol Monobutyl Ether Acetate]:
Eye irritating: 500mg/24H Mild (Rabbit OECD405)
Skin irritating: 500mg/24H Mild (open@ Rabbit OECD404)
Sensitization:
Not available
Reproductive toxicity:
Not available

12. Ecological information

12.1 Toxicity

Acquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

13. Disposal considerations

13.1 Waste treatment methods

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. Transport information

14.1 UN number

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

Transport and storage of the product in accordance with general precautions and instructions mentioned in this SDS.

15. Regulatory information

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

EU Regulation (EC) No. 1272/2008 (CLP Regulations)

REACH Status: In compliance.

Pre-registration status: All components are listed or exempted.

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

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

Not applicable.

15.2 Chemical Safety Assessment

No data available

15.3 Other information

US Regulation:

TSCA Section 4(a) Final Test Rules Regulated: Not regulated.

TSCA Section 5 Significant New Use Rule Regulation proposed: Diethylene glycol diethyl ether (CAS No.112-36-7)
Tetraethylene glycol dimethyl ether (CAS No.143-24-8)

TSCA Section 8(a) Preliminary Assessment Information Rule (PAIR): Not regulated.

TSCA Section 8(a) Inventory Update Rule: All components on TSCA INVENTORY

TSCA Section 8(d) Health and Safety Study Reporting: Not regulated.

TSCA Section 12(b) One-Time Export Notification Regulated: Diethylene glycol diethyl ether (CAS No.112-36-7)
Tetraethylene glycol dimethyl ether (CAS No.143-24-8)

Clean Air Act Section 112, Hazardous Air Pollutants (HAPs): Diethylene glycol diethyl ether (CAS No.112-36-7)
California Proposition 65: Not regulated.

16. Other information

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.
This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.