

SAFETY DATA SHEET

according to Regulation (EC) 1907/2006 as amended by Regulation (EU) 2015/830

Product name : High Density Ink HD119 Date Prepared : 21.08.2018
SDS Number : 12A081-2 Version : 2.1 Revision Date : 16.06.2020

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

1.1. Product identifier

Product name : High Density Ink HD119

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Ink for ink jet printer

1.3. Details of the supplier of the safety data sheet

Company : GENERAL CO., LTD.
18, Satsukigaoka, Minakuchi-cho, Koka-shi, Siga 528-0062, Japan

Telephone : +81-748-65-2260

Telefax : +81-748-63-1922

e-mail : qa_1@general.co.jp

1.4. Emergency telephone number : +81-748-65-2260

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

: This product is not classified according to the CLP regulation.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms : Not applicable

Signal word : Not applicable

Hazard statements : Not applicable

Precautionary statements : Not applicable

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Ingredients

Components	Concentration (wt %)	CAS No. EC No.	REACH Registration No.	Classification (EC) No 1272/2008
Water	> 60	7732-18-5 273-791-2	-	Not classified
2-pyrrolidone	< 15	616-45-5 210-483-1	-	Not classified
Hexane-1,2-diol	< 10	6920-22-5 230-029-6	-	Eye Irrit. 2, H319
Carbon Black	< 5	1333-86-4 215-609-9	-	Not classified
Black Dye	< 5	Confidential Confidential	-	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : When symptoms persist or in all cases of doubt seek medical advice.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Get medical advice/attention if you feel unwell.

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Skin contact : Wash thoroughly with soap and plenty of water while removing all contaminated clothes.
If skin irritation occurs: Get medical advice/attention.

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to remove. Continue to rinse for at least 15 minutes.
If eye irritation persists: Get medical advice/attention.

Ingestion : Wash mouth with water and seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water, Foam, CO2, Dry Chemical and others.

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides will form in fire.

5.3. Advice for firefighters

Fight fire from the windward side if possible. Wear suitable protective suit and self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment as specified in section 8.

6.2. Environmental precautions

Do not release into soil, sewers, river, or the public water courses.

6.3. Methods and material for containment and cleaning up

In the case of a cartridge: Not applicable.

At the time of the leakage of contents: Spills should be cleaned up with absorbent materials.

6.4. Reference to other sections

Refer to Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Prohibition of dropping and throwing.

Avoid contact with skin and eyes. Use only in a well-ventilated area.

Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Do not store ink in high or freezing temperature. Keep away from heat and direct sunlight.

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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Components	CAS No.	TWA	STEL	Country
2-pyrrolidone	616-45-5	Not determined	Not determined	-
Hexane-1,2-diol	6920-22-5	Not determined	Not determined	-
Carbon black	1333-86-4	3 mg/m3	No data available	Italy

Derived no-effect level (DNEL)

Components	Type	Route	Value	Exposure time
2-pyrrolidone	Workers	Inhalation	57.8 mg/m3	Systemic effects - long term
	Workers	Dermal	10 mg/kg bw/day	Systemic effects - long term
Hexane-1,2-diol	Workers	Inhalation	123 mg/m3	Systemic effects - long term
	Workers	Dermal	17.5 mg/kg bw/day	Systemic effects - long term

Predicted no effect concentrations (PNECs)

Components	Route	Value
2-pyrrolidone	Freshwater	500 µg/L
	Marine water	50 µg/L
	Intermittent releases (freshwater)	500 µg/L

8.2. Exposure controls

Appropriate engineering controls : Adequate ventilation should be provided so that exposure limits are not exceeded.
Individual protection measures, such as personal protective equipment
Eye/face protection : Wear appropriate protective eyeglasses or safety goggles.
Hand protection : Wear light-weight plastic or rubber gloves for routine industrial use.
Skin and body protection : Work clothes with long sleeves.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards : Not available
Environmental exposure controls : Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state : Liquid

Colour : Black

Odour : No strong odour is arrowed.

Odour threshold : No data available

pH : 8.3 - 9.3

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : Not detected.

Evaporation rate : No data available

Flammability (solid, gas) : Not available

Upper/lower flammability or explosive limits : No data available

Vapour pressure : No data available

Vapour density : No data available

Relative density : 1.04

Solubility(ies)

Water solubility : Solubility

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Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : 1.94 - 2.54 mPa·s (at 25 degrees C)
Explosive properties : This product is considered a no explosive material under normal use condition.
Oxidising properties : There is nothing in general storage and handling.

9.2. Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reactions with proper storage and handling.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions with proper storage and handling.

10.4. Conditions to avoid

Extreme high or low temperatures.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides, nitrogen oxides will form in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Components	Oral LD50	Dermal LD50	Inhalation LC50
2-pyrrolidone	(rat) 6500 mg/kg	(rabbit) >2000 mg/kg	No data available
Carbon Black	(rat) >8000 mg/kg	(rabbit) >3000 mg/kg	No data available

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : Causes serious eye irritation. [Hexane-1,2-diol]

Respiratory or skin sensitisation : No data available

Germ cell mutagenicity : No data available

Carcinogenicity : Carbon black is classified as a group 2B by IARC on carcinogen. However, Printing Ink is classified as a group 3 by IARC.

Reproductive toxicity : No data available

Specific target organ systemic toxicity -Single exposure : No data available

Specific target organ systemic toxicity -Repeated exposure : No data available

Aspiration hazard : No data available

SECTION 12: Ecological information

12.1. Toxicity

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Aquatic toxicity (acute)

Components	Species	Value
2-pyrrolidone	Brachidanio rerio	LC50 (96 h) >4600 mg/L
	Daphnia pulex	EC50 (48 h) 13.21 mg/L

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Dispose of waste material in accordance with local, state and federal pollution regulations.
Contaminated packaging : When disposing of an empty container, dispose after removing contents materials completely. Dispose of this material and its container according to your country law.

SECTION 14: Transport information

14.1. UN number

ADR/RID : Not dangerous goods.
IMDG : Not dangerous goods.
ICAO-TI/IATA-DGR : Not dangerous goods.

14.2. UN proper shipping name

ADR/RID : Not dangerous goods.
IMDG : Not dangerous goods.
ICAO-TI/IATA-DGR : Not dangerous goods.

14.3. Transport hazard class(es)

ADR/RID : Not dangerous goods.
IMDG : Not dangerous goods.
ICAO-TI/IATA-DGR : Not dangerous goods.

14.4. Packing group

ADR/RID : Not dangerous goods.
IMDG : Not dangerous goods.
ICAO-TI/IATA-DGR : Not dangerous goods.

14.5. Environmental hazards

ADR/RID : Not applicable
IMDG : Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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SECTION 15: Regulatory information

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

(EC) No 1907/2006 (REACH)

Annex XIV (Authorisation) : Not regulated
Annex XVII (Restrictions on use) : Not regulated

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Indication of changes

Issue Date : 16.06.2020
Version : 2.1
Revision information : Section 1 : Product name
Section 8.1 : DNEL, PNECs

Abbreviations and acronyms

ADR : Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Classification, Labelling and Packaging
DNEL : Derived No Effect Level
EC : European Community
EU : European Union
GHS : Globally Harmonized System
IARC : International Agency for Research on Cancer
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO-TI : Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG : International Maritime Dangerous Goods
LC50 : Lethal Concentration 50%
LD50 : Lethal Dose 50%
OEL : Occupational Exposure Limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
STEL : Short Term Exposure Limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time Weighted Average
UN : United Nations
vPvB : Very Persistent and Very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
Regulation (EC) No. 1272/2008 (CLP)
ECHA: Information on Chemicals
3E: Ariel Research Tool
SDS of raw material manufacturer

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

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Full text of any H-statements not written out in full under Sections 2 to 15

H319 : Causes serious eye irritation.

Training advice

General occupational hygiene training recommended.

Further information

Disclaimer : The information contained herein is based on the current knowledge. This Safety Data Sheet is intended to describe our products in correctness of safety requirements. It should not therefore be construed as guaranteeing specific properties. The data applies to only usual handling.