

SAFETY DATA SHEET

Waterborne Double-Line Ink(Orange)

Version 1.0

Issue date: 14/04/2021

Revision date: 14/04/2021

SDS Record Number: CSSS-TCO-010-132246

1. Identification

GHS product identifier: Waterborne Double-Line Ink(Orange)
Other means of identification: See section 3
Recommended use of the chemical and restrictions on use:
Recommended use: Pen
Recommended Restrictions: Not available
Supplier's details:
Supplier(Manufacturer): Ningbo Lofos Stationery Co., Ltd.
Address: No.529,Mingzhou West Road, Xinqi, Beilun District, Ningbo City
Contact person(E-mail): 20683554@qq.com
Telephone: +86-13567898875
Fax: -
Emergency phone number: +86-13567898875

2. Hazards identification

Classification of the substance or mixture:

Physical hazards:	Flammable liquids	Category 2
Health hazards:	Not classified	
Environmental hazards:	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3

GHS label elements, including precautionary statements:

Hazard Pictograms: :



Signal word: Danger
Hazard statement: Highly flammable liquid and vapour
Toxic to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary statement:

Prevention: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of soap and water.
In case of fire: Use dry chemical, alcohol resistant foam or carbon dioxide, water spray to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulation.

Other hazards which do not result in Not applicable

classification:

3. Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	CAS No.	EC No.	Concentration
Aluminum powder	7429-90-5	231-072-3	5%
Propylene glycol monomethyl ether	107-98-2	203-539-1	10%
SOLVENT YELLOW 44	2478-20-8	219-607-9	0.4%
Ethanol	64-17-5	200-578-6	84%
Basic Red 1:1	3068-39-1	221-326-1	0.6%

4. First aid measures

Description of necessary first-aid measures:

Inhalation:	Move subject to fresh air and keep him calm. In case of complaints get medical treatment.
Skin:	Remove contaminated clothing immediately and wash skin with soap and water.
Eye:	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.
Ingestion:	Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions.
Most important symptoms/effects, acute and delayed:	The product is not classified as harmful to human health effect.

Indication of immediate medical attention and special treatment needed, if necessary: Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	Dry chemical, alcohol resistant foam or carbon dioxide, water spray.
Unsuitable extinguishing media:	Not available.
Specific hazards arising from the chemical:	In case of fire, the following can be released: carbon monoxide, carbon dioxide.
Special protective actions for fire-fighters:	Protective equipment for fire-fighters, Self-contained breathing apparatus. Use air-supplied respirator, gloves and protective goggles.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:	Provide adequate ventilation. Avoid breathing vapors, mist or gas. Evacuate personnel to safe areas. Refer to section 8 of SDS for personal protection details.
For emergency responders:	Wear an appropriate NIOSH/MSHA approved respirator if vapor is generated.
Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up:	Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Precautions for safe handling:

Provide good ventilation. Avoid breathing vapor or mist. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Do not taste or swallow. Avoid contact with skin and eyes. Avoid prolonged exposure. Do not get this material on clothing. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store in tightly closed original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures.

8. Exposure controls/personal protection

Control parameters:

Country	Substance	EINECS No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		
				ppm	mg/ m3	ppm	mg/ m3	Note
	Aluminium metal; total inhalable dust respirable dust welding fume	231-072-3	7429-90-5	- - -	10 4 5	- - -	- - -	- - -
Ireland	Ethanol	200-578-6	64-17-5	1000	1900	-	-	-
Ireland	Propylene glycol monomethyl ether	203-539-1	107-98-2	50	184	100	368	IOELV

Appropriate engineering controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Individual protection measures, such as personal protective equipment (PPE):

Eye/face protection:

Chemical safety goggles.

Skin protection:

Wear normal working clothing.

Respiratory protection:

Wear approved mask/respirator.

Thermal hazards:

Wear suitable protective clothing to prevent heat.

9. Physical and chemical properties and safety characteristics

Appearance:

Physical state:

Liquid

Form:

Liquid

Color:

Orange

Odor:

Not available

Melting point/ freezing point:

-97.8 °C(CAS# 64-17-5)

Boiling point or initial boiling point and boiling range:

64.7 °C(CAS# 64-17-5)

Flammability:

Not available

Lower and upper explosion limit / flammability limit:

2.5 %/13.5%(CAS# 64-17-5)

Flash point:

9.7 °C(CAS# 64-17-5)

Auto-ignition temperature:

455 °C(CAS# 64-17-5)

Decomposition temperature:

Not available

PH:

Not available

Viscosity:

0.544 - 0.59 mPa s (25°C,CAS# 64-17-5)

Solubility :

>= 1 000 g/L(20°C,CAS# 64-17-5)

Partition coefficient n-octanol/water (log value):

-0.77(CAS# 64-17-5)

Vapor pressure:	169.27 hPa(25°C,CAS# 64-17-5)
Density and/or relative density:	0.79 - 0.8(20 °C,CAS# 64-17-5)
Relative vapour density:	Not available
Particle characteristics:	Not available
Molecular weight:	Not available
Molecular formula:	Not available

10. Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	Material is stable under normal conditions
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid:	Contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide.

11. Toxicological information

Acute toxicity:

Ethanol(CAS# 64-17-5)

LD50(Oral, Rat):	10 470 mg/kg bw
LD50(Dermal, Rabbit):	Not available.
LC50(Inhalation, Rat):	124.7 mg/L,4H
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

12. Ecological information

Toxicity:

Ethanol(CAS# 64-17-5)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	275 mg/L	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	Toxic to aquatic life. Harmful to aquatic life with long lasting effects

13. Disposal considerations

Disposal methods:	<p>Collect and reclaim or dispose in sealed containers at licensed waste disposal site.</p> <p>Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues.</p> <p>Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.</p>
--------------------------	--

14. Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	1993	1993	1993
UN Proper shipping name	FLAMMABLE LIQUID, N.O.S.(ethanol)	FLAMMABLE LIQUID, N.O.S.(ethanol)	FLAMMABLE LIQUID, N.O.S.(ethanol)
Transport hazard class(es)	3	3	3
Packing group, if applicable	II	II	II
Environmental hazards	No	No	No
Special precautions for user	See section 2	See section 2	See section 2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	IBC02	IBC02	IBC02

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

The date of preparation of the latest revision of the SDS:	Version 1.0 Amended by GHS rev 6 on Aug.16 th ,2019
Legend to abbreviations and acronyms used in the SDS:	ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail (European law)

IMDG: International Maritime Dangerous Goods

EINECS: European Inventory of Existing commercial Chemical Substances

IATA: International Air Transport Association

ICAO-TI: International Civil Aviation Organization 《The International Civil Aviation Covenant》 (ICAO)

CAS: Chemical Abstracts Service

LC50: Lethal Concentration 50

EC50: Concentration for 50% of maximal effect

LD50: Lethal dose 50%

**References and sources for data
used to compile the SDS:**

The European Chemicals Agency