SAFETY DATA SHEET

Issuing Date 13-2-2023

SECTION 1: Identification of the hazardous chemical and of the supplier

Chemical Name

Product name DB513INK

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Printing ink

Uses advised against No information available

Company

Inkminic Logo Technology
(Guangzhou) Co., Ltd

Chemical Emergency Phone Number:

020-32954560 (24 Hours)

Section 2: Hazard identification

GHS Classification

Flammable liquids	Category 2 - (H225)
Skin corrosion/ irritation	Category 2 - (H315)
Serious eye damage/ eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H336)

Label elements

Signal word
Danger
Contains Methyl ethyl ketone

Hazard statements
H225 - Highly flammable liquid and vapor
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
AUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/ protective clothing/ eye protection/ face protection
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground/ bond container and receiving equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Use explosion-proof electrical/ ventilating / lighting/ equipment
Keep cool
Precautionary Statements - Response
Specific treatment
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/ attention
If skin irritation occurs: Get medical advice/ attention
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/ physician if you feel unwell
In case of fire: Use CO_2, dry chemical, or foam for extinction
Precautionary Statements - Storage
Maintain air gap between stacks/ pallets
Store in a dry place
Precautionary Statements - Disposal
Dispose of contents/ container to an approved waste disposal plant

Other hazards which do not result in classification
May be harmful if swallowed
May be harmful in contact with skin
Harmful to aquatic life with long lasting effects
Toxic to aquatic life

General Hazards No information available

Section 3: Composition and information on ingredients

Substance

Not applied

Mixture
Chemical nature

Preparation.

Chemical name	CAS No.	Weight-%
Methyl ethyl ketone	78-93-3	70 - 80
Propylene glycol monomethyl ether acetate	108-65-6	5-10
Xylenes (o-, m-, p- isomers)	1330-20-7	<5

3,4-Epoxycyclohexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester	2386-87-0	<1

Additional information
This mixture contains ≥ 1% titanium dioxide (CAS 13463-67-7) The Annex VI classification of Titanium dioxide does not apply to this mixture according to its Note 10.

Section 4: First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Emergency telephone number Poisons Information Center, Australia: 13 1 1 26
Poisons Information Center, New Zealand: 0800 764 766

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: Fire-fighting measures

Suitable Extinguishing Media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Precautions to prevent secondary hazards

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

SECTION 8: Exposure controls and personal protection

Control parameters

Exposure Limits

Chemical name	Australia	ACGIH TLV
Methyl ethyl ketone 78-93-3	150 ppm 445 mg/m³ 300 ppm STEL 890 mg/m³ STEL	STEL: 300 ppm TWA: 200 ppm
Propylene glycol monomethyl ether acetate 108-65-6	50 ppm 274 mg/m³ 100 ppm STEL 548 mg/m³ STEL	
Xylenes (o-, m-, p- isomers) 1330-20-7	80 ppm 350 mg/m³ 150 ppm STEL 655 mg/m³ STEL	STEL: 150 ppm TWA: 100 ppm

Chemical name	Australia	ACGIH
Methyl ethyl ketone 78-93-3	-	2 mg/L
Xylenes (o-, m-, p- isomers) 1330-20-7	-	1.5 g/g creatinine - urine (Methylhippuric acids) - end of shift

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/ face protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Hand protection Wear suitable gloves. Impervious gloves.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	
Appearance **Color :**blue	
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	
Melting point / freezing point	-85 °C	
Boiling point / boiling range	75 °C	
Flash point	-9 °C	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	12.0	
Lower flammability or explosive limits	0.6	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	0.915	
Water solubility	partly soluble	
Solubility(ies)	No data available	None known
Partition coefficient	log P(o/w) = 0.26	
Autoignition temperature	200 °C	
Hyphen	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	81.91
Liquid Density	No information available
Bulk density	ND

Section 10: Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions **Conditions to avoid**

Hazardous polymerization **Incompatible materials**

Conditions to avoid

None under normal processing.

no.

Heat, flames and sparks.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products none.

Section 11: Toxicological information

Acute toxicity

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea May be harmful if swallowed

Symptoms Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 3,962.30 mg/kg
ATEmix (dermal) 4,753.50 mg/kg
ATEmix (inhalation-dust/mist) 32.30 mg/l

Unknown acute toxicity 16.8841102 % of the mixture consists of ingredient(s) of unknown toxicity
8.8538302 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
10. 1038302 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
20.7423702 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
20.7423702 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
16.8841102 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl ethyl ketone	2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
Propylene glycol monomethyl ether acetate	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 mg/m³ (Rat) 6 h
Xylenes (o-, m-, p- isomers)	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	29.08 mg/L [MOE Risk Assessment Vol. 1, 2002]
3,4-Epoxycyclohexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester	= 5000 mg/kg (Rat)	= 23600 mg/kg (Rabbit)	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/ irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/ eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	Australia
3,4-Epoxycyclohexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester - 2386-87-0	Carc. 2

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: Ecological information

Ecotoxicity

Ecotoxicity Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/ aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methyl ethyl ketone	-	LC50: 3130 - 3320mg/L (96h, Pimephales promelas)	-	EC50: >520mg/L (48h, Daphnia magna) EC50: =5091mg/L (48h, Daphnia magna) EC50: 4025 - 6440mg/L (48h, Daphnia magna)
Propylene glycol monomethyl ether acetate	-	LC50: =161mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)

Xylenes (o-, m-, p-isomers)	-	LC50: =13.4mg/L (96h, Pimephales promelas) LC50: 2.661 - 4.093mg/L (96h, Oncorhynchus mykiss) LC50: 13.5 - 17.3mg/L (96h, Oncorhynchus mykiss) LC50: 13. 1 - 16.5mg/L (96h, Lepomis macrochirus) LC50: =19mg/L (96h, Lepomis macrochirus) LC50: 7.711 - 9.591mg/L (96h, Lepomis macrochirus) LC50: 23.53 - 29.97mg/L (96h, Pimephales promelas) LC50: =780mg/L (96h, Cyprinus carpio) LC50: >780mg/L (96h, Cyprinus carpio) LC50: 30.26 - 40.75mg/L (96h, Poecilia reticulata)	-	EC50: =3.82mg/L (48h, water flea) LC50: =0.6mg/L (48h, Gammarus lacustris)
3,4-Epoxycyclohexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester	-	LC50: =24mg/L (96h, Oncorhynchus mykiss)	-	-

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Methyl ethyl ketone	0.3
Propylene glycol monomethyl ether acetate	1.2
Xylenes (o-, m-, p- isomers)	3.15
3,4-Epoxycyclohexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester	1.34

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal information

Waste treatment methods

Waste from residues/ unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld containers.

SECTION 14: Transportation information

IATA

UN number UN1210
Proper Shipping Name Printing ink
Transport hazard class(es) 3
Packing group II

IMDG

UN number	UN1210
Proper Shipping Name	Printing ink
Transport hazard class(es)	3
Packing group	II
EmS-No	F-E, S-D

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Section 15: Regulatory information

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

National regulations

Australia
See section 8 for national exposure control parameters
Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
Poison Schedule Number 4

Major hazard (accident/incident planning) regulation
Verify that license requirements are met

Hazardous chemical	Threshold quantity (T)
Liquids with flash points <61°C kept above their boiling points at ambient conditions	200

National pollutant inventory
Subject to reporting requirement

Chemical name	National pollutant inventory
Methyl ethyl ketone - 78-93-3	10 tonne/yr Threshold category 1 20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
Propylene glycol monomethyl ether acetate - 108-65-6	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
Xylenes (o-, m-, p- isomers) - 1330-20-7	10 tonne/yr Threshold category 1 including individual or mixed isomers 20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

Banned and/or restricted
This product contains one or more substance(s) subject to prohibition, authorization or restriction. Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met.

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.

EINECS/ ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AICS	Contact supplier for inventory compliance status.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/ NDSL - Canadian Domestic Substances List/ Non-Domestic Substances List
EINECS/ ELINCS - European Inventory of Existing Chemical Substances/ European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applied

The Stockholm Convention on Persistent Organic Pollutants Not applied

The Rotterdam Convention Not applied

Section 16: Other information

Issuing Date 29-Apr-2022
Revision date 29-Apr-2022
Revision Note
The symbol (*) in the margin of this SDS indicates that this line has been revised.
Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U. S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U. S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U. S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet