

Material Safety Data Sheet

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Revision Date

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name COPIC INK
UN-No UN1210
Recommended Use Markers Pens

Supplier Address

Too Marker Products Inc.
20-8, EBISU 1-CHOME,
SHIBUYA-KU
TOKYO 150-0013,
JAPAN
TEL: (+81) 3-3440-1536

Emergency Telephone Number (+81) 3-3440-6141

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

FLAMMABLE LIQUID AND VAPOR
Harmful if swallowed, inhaled, or absorbed through skin
May cause skin, eye, and respiratory tract irritation
May cause central nervous system depression
May cause adverse effects on the bone marrow and blood-forming system
May cause adverse liver effects
Contains a known or suspected reproductive toxin

Appearance Translucent

Physical State Liquid.

Odor Alcohol

Potential Health Effects

Principle Routes of Exposure Skin contact. Eye contact.

Acute Toxicity

Eyes

May cause irritation.

Skin

Harmful if absorbed through skin. May cause irritation.

Inhalation

Harmful by inhalation. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Ingestion

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.

Chronic Effects

Avoid repeated exposure. Contains a known or suspected reproductive toxin. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Aggravated Medical Conditions

Central nervous system. Gastrointestinal tract. Pre-existing eye disorders. Blood disorders. Liver disorders. Overexposure may cause female and male reproductive disorder(s). Skin disorders. Respiratory disorders. Reproductive toxicity.

Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Ethanol	64-17-5	62-82
Rosin, maleated, polymer with Pentaerythritol	68333-69-7	5-12
Propanol	71-23-8	7.5-9
Isopropyl alcohol	67-63-0	3.5-4.5
Ink	RR-00341-8	<3
Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	9036-19-5	1.0-3.3

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Skin Contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Inhalation	Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If symptoms persist, call a physician.
Ingestion	Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person.
Notes to Physician	Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable Properties	HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Containers may explode when heated. Many liquids are lighter than water.
Flash Point	55.4°F / 13°C
Suitable Extinguishing Media	Dry chemical, CO ₂ , water spray or alcohol-resistant foam.
Unsuitable Extinguishing Media	CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient. Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane Do not use straight streams.
Explosion Data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Yes.
Specific Hazards Arising from the Chemical	Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	Health Hazard 2	Flammability 4	Stability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 2*	Flammability 4	Physical Hazard 0	Personal Protection B

*Indicates a chronic health hazard.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.
Environmental Precautions	Prevent entry into waterways, sewers, basements or confined areas.
Methods for Containment	A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Methods for Cleaning Up	Use clean non-sparking tools to collect absorbed material.
Other Information	Water spray may reduce vapor; but may not prevent ignition in closed spaces.

7. HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only in area provided with appropriate exhaust ventilation.
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Propanol 71-23-8	TWA: 100 ppm	TWA: 200 ppm TWA: 500 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 500 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 625 mg/m ³	IDLH: 800 ppm TWA: 500 mg/m ³ TWA: 200 ppm STEL: 250 ppm STEL: 625 mg/m ³
Isopropyl alcohol 67-63-0	STEL = 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 1225 mg/m ³ (vacated) STEL: 500 ppm	IDLH: 2000 ppm 10% LEL TWA: 980 mg/m ³ TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection
Skin and Body Protection
Respiratory Protection

Tightly fitting safety goggles.
Protective gloves. Lightweight protective clothing.
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Translucent.	Odor	Alcohol.
Odor Threshold	No information available	Physical State	Liquid
pH	No information available	Autoignition Temperature	No information available
Flash Point	55.4°F / 13°C	Boiling Point/Range	(based on Ethanol): 78.3°C
Decomposition Temperature	No information available	Explosion Limits	No information available
Melting Point/Range	No information available	Solubility	No information available
Flammability Limits in Air	No information available	Vapor Pressure	No data available
Specific Gravity	No data available	VOC Content(%)	84.483
Evaporation Rate	No information available		
Vapor Density	No data available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Strong oxidizing agents. Acids. Chlorinated compounds.
Conditions to Avoid	Heat, flames and sparks.
Hazardous Decomposition Products	Carbon oxides.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Harmful if swallowed, inhaled, or absorbed through skin.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	7060 mg/kg (Rat)		
Propanol	1870 mg/kg (Rat)		13548 ppm (Rat) 4 h
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Poly(oxy-1,2-ethanediyl), .alpha.- [(1,1,3,3-tetramethylbutyl)phenyl]- .omega.-hydroxy-	4190 mg/kg (Rat)		

Chronic Toxicity

Chronic Toxicity Avoid repeated exposure. Contains a known or suspected reproductive toxin. Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol	A3	Group 1	Known	X
Isopropyl alcohol		Group 3		X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Target Organ Effects Blood. Central nervous system (CNS). Eyes. Gastrointestinal tract (GI). Liver. Reproductive system. Respiratory system. Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ethanol		LC50: 12.0-16.0 ml/L Oncorhynchus mykiss 96 h static LC50: >100 mg/L Pimephales promelas 96 h static LC50: 13400-15100 mg/L Pimephales promelas 96 h flow-through	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	LC50: 9268 - 14221 mg/L Daphnia magna 48 h EC50: 10800 mg/L Daphnia magna 24 h EC50: 2 mg/L Daphnia magna 48 h Static
Propanol		LC50: 4480 mg/L Pimephales promelas 96 h flow-through	EC50 = 17700 mg/L 5 min EC50 = 45000 mg/L 5 h EC50 = 8686 mg/L 15 min EC50 = 980 mg/L 12 h	EC50: 3642 mg/L Daphnia magna 48 h EC50: 3339 - 3977 mg/L Daphnia magna 48 h Static
Isopropyl alcohol	EC50: >1000 mg/L Desmodesmus subspicatus 96 h EC50: >1000 mg/L Desmodesmus subspicatus 72 h	LC50: 9640 mg/L Pimephales promelas 96 h flow-through LC50: 11130 mg/L Pimephales promelas 96 h static LC50: >1400000 µg/L Lepomis macrochirus 96 h		EC50: 13299 mg/L Daphnia magna 48 h

Chemical Name	Log Pow
Ethanol	-0.32
Propanol	0.34
Isopropyl alcohol	0.05

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Do not re-use empty containers.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Ethanol	Toxic Ignitable
Propanol	Toxic Ignitable
Isopropyl alcohol	Toxic Ignitable
Ink	Toxic

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Printing ink
Hazard Class 3
UN-No UN1210
Packing Group II
Description UN1210, Printing ink, 3, PG II

14. TRANSPORT INFORMATION

TDG

Proper Shipping Name	Printing ink
Hazard Class	3
UN-No	UN1210
Packing Group	II
Description	UN1210, PRINTING INK, 3, PG II

MEX

Proper Shipping Name	Printing ink
Hazard Class	3
UN-No	UN1210
Packing Group	II
Description	UN1210, Printing ink, 3, II

ICAO

UN-No	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	II
Description	UN1210, Printing ink, 3, PG II

IATA

UN-No	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	II
ERG Code	3L
Description	UN1210, Printing ink, 3, PG II

IMDG/IMO

Proper Shipping Name	Printing ink
Hazard Class	3
UN-No	UN1210
Packing Group	II
EmS No.	F-E, S-D
Description	UN1210, Printing ink, 3, PG II, FP 13C

RID

Proper Shipping Name	Printing ink
Hazard Class	3
UN-No	UN1210
Packing Group	II
Classification Code	F1
Description	UN1210, Printing ink, 3, II
ADR/RID-Labels	3

ADR

Proper Shipping Name	Printing ink
Hazard Class	3
UN-No	UN1210
Packing Group	II
Classification Code	F1
Description	UN1210, Printing ink, 3, II

ADN

Proper Shipping Name	Printing ink
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14. TRANSPORT INFORMATION

Hazard Class	3
UN-No	UN1210
Packing Group	II
Classification Code	F1
Special Provisions	163, 640C
Description	UN1210, Printing ink, 3, II
Hazard Labels	3
Limited Quantity	LQ6
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Not determined
DSL	Not determined
EINECS	Not determined
ENCS	Not determined
IECSC	Not determined
KECL	Not determined
PICCS	Not determined
AICS	Not determined

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU 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

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals: Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Chemical Name	CAS-No	California Prop. 65
Ethanol	64-17-5	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ethanol	X				X
Propanol	X	X	X		X
Isopropyl alcohol	X				

International Regulations

Mexico - Grade

Severe risk, Grade 4

Chemical Name	Carcinogen Status	Exposure Limits
Propanol		Mexico: TWA= 200 ppm Mexico: TWA= 500 mg/m ³ Mexico: STEL= 250 ppm Mexico: STEL= 625 mg/m ³
Isopropyl alcohol		Mexico: TWA= 400 ppm Mexico: TWA= 980 mg/m ³ Mexico: STEL= 1225 mg/m ³ Mexico: STEL= 500 ppm

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid
D2A Very toxic materials



Chemical Name	NPRI
Isopropyl alcohol	X

Legend

NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date

Revision Note Initial Release.

General Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet