Material Safety Data Sheet

Issuing Date No data available **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.

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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.

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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 Tightly fitting safety goggles.

Skin and Body Protection Protective gloves. Lightweight protective clothing.

Respiratory Protection 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		
Flash Point	55.4°F / 13°C	**Autoignition Temperature**	No information available
Decomposition Temperature	No information available	**Boiling Point/Range**	(based on Ethanol): 78.3°C
Melting Point/Range	No information available		
Flammability Limits in Air	No information available	**Explosion Limits**	No information available
Specific Gravity	No data available	**Solubility**	No information available
Evaporation Rate	No information available	**Vapor Pressure**	No data available
Vapor Density	No data available	**VOC Content(%)**	84.483

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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.

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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

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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/NDSL - 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

<Material Safety Data Sheet>

Too Marker Products Inc.
TOC Bldg. 8F, 22-17, Nishi-Gotanda 7-chome, Shinagawa-ku, Tokyo, Japan
(Phone)81-3-5719-2657 (Fax)81-3-5719-2658
January 01, 2014

Product Name: Copic Multiliner (water based pigment ink)
Copic Multiliner SP (water based pigment ink)

Hazardous Component:	CAS No.
(Black)	
Water	
Carbon Black	1333-86-4
Glycerin	56-81-5
Resin	25086-15-1
Isopropyl Alcohol	67-63-0
(Purple)	
Water	
Purple	6358-30-1
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Wine)	
Water	
Red	1047-16-1
Blue	147-14-8
Yellow	6358-85-6
Purple	6358-30-1
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Pink)	
Water	
Red	1074-16-1
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Red)	
Water	
Red	6655-84-1
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Orange)	
Water	
Orange	6505-28-8
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Isopropyl Alcohol	67-63-0
(Yellow)	
Water	

Yellow	6358-85-6
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Olive)	
Water	
Carbon Black	1333-86-4
Blue	147-14-8
Yellow	6358-85-6
Purple	6358-30-1
Ethrene Glycol	107-21-1
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Turquois)	
Water	
Green	1328-53-6
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Sky Blue)	
Water	
Blue	147-14-8
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Cobalt)	
Water	
Red	6655-84-1
Blue	147-14-8
Ethrene Glycol	107-21-1
Glycerin	56-81-5
Resin	25086-15-1
Urea	57-13-6
Isopropyl Alcohol	67-63-0
(Sepia)	
Water	
Yellow	5567-15-7
Red	57301-22-1
Blue	147-14-8
Ethrene Glycol	107-21-1
Resin	25086-15-1
Isopropyl Alcohol	67-63-0
(Cool Grey)	
Water	
Carbon Black	1333-86-4
Blue	147-14-8
Glycerin	56-81-5
Resin	25086-15-1
Isopropyl Alcohol	67-63-0
(Warm Grey)	
Water	
Carbon Black	1333-86-4
Ethrene Glycol	107-21-1
Diethrene Glycol	111-46-6

Resin 1	25086-15-1
Resin2	67-63-0
	7732-18-4
	71356--38-2
Urea	57-13-6
Isopropyl Alcohol	67-63-0

This artitst drawing ink is a professional artits's product that is not intended for use by children. Keep out of the reach of children. Non-Flammable.

Physical and Chemical Characteristics

Classification:	Non-flammable liquid
Boiling Point:	100 degrees centigrade
Vapor Pressure:	Not known
Vapor Density:	Not known
Solubility in Water:	Moderate
Specific Gravity:	1.03-1.05
Melting Point:	Not Applicable
Evaporation Rate:	Slow
Odor:	Very little
Apprearance:	Liquid Ink

Fire and Explosion Hazard Data

Flash Point:	Non-flammable
Lower Flammable Limit:	
Upper Flammable Limit:	
Fire extinguishing media:	Water
Special Fire Fighting Procedur	Use water. Report to the appropriate authorities to seek for assistance.
Unusual Fire & Explosion Haz	None

Reactivity Data

Stability:	Stable: Yes
Conditions to Avoid:	None Known
Incompatibility (Avoid):	None Known
Hazardous Decomposition:	No
Hazardous Polymerization:	No
Conditions to Avoid:	None Known

Health Hazard Data

Physical Hazards:	No
Health Hazards:	Do not swallow. No warranty is given.
First Aid:	**Eye Contact:** Flush the eye with fresh water for at least 5 minutes. Seek ophthalmologist assistance immediately. **Swallowed:** Give a plenty of water or salt water, put fingers down the throat to induce vomit, and seek medical help immediately. Do not give an unconscious victim anything orally.

Precaution for Safe Handling and Use

In Case of Spill:	Flush out the spill by large quantities of water. In this case, need to make sure that the concentrated liquid would not be flown out into nearby rivers and other water bodies.
Waste Disposal Method	Dispose in accordance with the regulations of country concerned for water based pigment ink.
Precaution	None Known.
Other Precautions	None Known.

Control Measures

Respiratory Protection:	None.

Local Exhaust:	Not specifically suggested.
Special Local Exhaust:	Not specifically suggested.
Mechanical Exhaust:	Not specifically suggested.
Other Mech. Exhaust:	Not specifically suggested.
Protective Gloves:	Yes to avoid skin contact.
Eye Protection:	Chemical goggles or face shield to avoid splash.
Other Protective Clothing or Equipment:	Impervious rubber gloves
Work/Hygienic Practices:	Use standard Artist's precautions. Do not spray or airbrush without adequate ventilation. Avoid inhalation of mist or spray.
Handling and Storage:	**Handling:** Do not swallow. **Storage:** Store in accordance with the regulations of country concerned. Store it in a cool and dry area out of direct sunlight.
Protection from Exposure:	**Accommodation/equipment measures:** Handle the material in a well-ventilated place. **Protective gear:** Rubber gloves and chemical goggles or face shield for normal condition. Wear rubber gloves, rubber apron, and safety shoes, protective goggles, and gas mask for concentrated area.
Disposal:	Recover free liquid and dispose in accordance with the regulations of country concerned.
Transportation:	Follow the directions given in Handling and Storage section.
Inquiry, References:	The above statements were based on currently available data and information. Please note that this does not ensure the product characteristics in every possible respect. Strict observance of current laws and regulations is individual responsibility.

<Material Safety Data Sheet>

Too Marker Products Inc.
Gakken Bldg. 11F, 11-8, Nishi-Gotanda 2-chome, Shinagawa-ku, Tokyo, Japan
(Phone)03-5719-2657 (Fax)03-5719-2658
January 01, 2013

Product Name:	atyouSpica pen (water based pigment ink)	
Component:	Mixed product of followings:	
	Glass flakes coated with Silver	
	Borosilicate Glass	65997-17-3
	Silver	7440-22-4
	Oxidation Tin	18282-10-5
	Ethylene Glycol	107-21-1
	Isopropylene Glycol	67-63-0
	Diethylene glycol monobutyl ether	112-34-5
	Diethylene Glycol	111-46-6
	Urea	57-13-6
	Antifungal Agent	26172-55-4
	Glycerin	56-81-5
	Activator	25086-15-1
	Water	7732-18-5
	Pigment:	
	Black	1333-86-4
	Blue	147-14-8
	Red	57301-22-1
	Yellow	5567-15-7
	Orange	6505-28-8
	Pink	1047-16-1
	Violet	6358-30-1
	Green	1328-53-6
Physical and Chemical Characteristics		
Classification:	Liquid	
Boiling Point:	Not known	
Vapor Pressure:	Not known	
Vapor Density:	Not known	
Solubility in Water:	Soluble Glass flakes coated with Titanium are non-soluble	
Specific Gravity:	Not known	
Melting Point:	Not Applicable	
Evaporation Rate:	Not known	
Odor:	Very little	
Apprearance:	Liquid Ink	
Fire and Explosion Hazard Data		
Flash Point:	Non-flammable	
Lower Flammable Limit:		
Upper Flammable Limit:		
Fire extinguishing media:	Powder, carbonic acid gas, or sands	
Special Fire Fighting Procedure:	Block out fire source and extinguish with extinguishing media	
Unusual Fire & Explosion Hazards:	None	
Reactivity Data		
Stability:	Stable in normal condition	
Conditions to Avoid:	Not known	
Incompatibility (Avoid):	Not known	
Hazardous Decomposition:	No	
Hazardous Polymerization:	No	
Conditions to Avoid:	Not known	

Health Hazard Data	
Physical Hazards:	No
Health Hazards:	Do not swallow. No warranty is given. In case of direct contact with glass flakes it rarely causes temporal itchiness on the skin, eyes, throat, nose.
First Aid:	**Eye Contact:** Flush the eye with fresh water and seek ophthalmologist assistance immediately in the event of pain. **Swallowed:** Give a plenty of water or salt water, put fingers down the throat to induce vomit, and seek medical help immediately. Do not give an unconscious victim anything orally. **Skin Contact:** Wash with large quantities of water and soap.
Precaution for Safe Handling and Use	
In Case of Spill:	When working, the protective equipment should be worn without fail. Do not work in leeward.
In case of a little amount	The leakage liquid is absorbed by sawdust, the cotton waste, and sand, etc. and collected.
In case of a large amount	Stop the outflow with earth and sand etc. and collect it as much as possible.
Waste Disposal Method	Dispose in accordance with the regulations of country concerned for water based pigment ink.
Precaution	None Known.
Other Precautions	None Known.
Control Measures	
Respiratory Protection:	None.
Local Exhaust:	Not specifically suggested.
Special Local Exhaust:	Not specifically suggested.
Mechanical Exhaust:	Not specifically suggested.
Other Mech. Exhaust:	Not specifically suggested.
Protective Gloves:	Yes to avoid skin contact.
Eye Protection:	Wear protective spectacles
Other Protective Clothing or Equipment:	Mask and rubber shoes, etc.
Work/Hygienic Practices:	Do not spray or airbrush without adequate ventilation. Avoid inhalation of mist or spray.
Handling and Storage:	**Handling:** Avoid direct sunlight and seal it up. **Storage:** Store in accordance with the regulations of country concerned. Keep in the cool dark place.
Protection from Exposure:	**Accommodation/equipment measures:** Handle the material in a well-ventilated place. **Protective gear:** Rubber gloves and chemical goggles or face shield for normal condition. Wear rubber gloves, rubber apron, and safety shoes, protective goggles, and gas mask for concentrated area. Keep it away from children.
Disposal:	Recover free liquid and dispose in accordance with the regulations of country concerned.
Transportation:	Follow the directions given in Handling and Storage section. Confirm no container leakage and make sure to prevent the loading collapse of cargo piles by falls and damage in transportation.
Inquiry, References:	The above statements were based on currently available data and information. Please note that this does not ensure the product characteristics in every possible respect. Strict observance of current laws and regulations is individual responsibility.