

SAFETY DATA SHEET

Date of Issue: February 1, 2010
SDS No.: SI-081
Version: 002



1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

This product is a writing instrument to be recognized as Article.

1.1. Identification of the substance or preparation

Product name : SCA Marker-Fine
SCA Marker-Chisel
Product code : SCA-F-B/R/L/G/V/BN/Y/O
SCA-B-B/R/L/G/V/BN/Y/O
Preparation name : SCA-B/R/L/G/V/BN/Y/O

1.2. Use of the preparation : Ink for writing instrument

1.3. Company identification e-mail address

Name of manufacture : PILOT Corporation
/ supplier
Address : 6-21, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8304, Japan
Telephone number : 03-3538-3700
Working hours (from 09.00am to 05.30pm)
acsimile number : 03-3538-3909
e-mail address : international@pilot.co.jp

2. HAZARDS IDENTIFICATION

Based on the law and regulation in Japan

Physical /Chemical hazards : Flammable liquid
Environmental hazards : Not applicable
Effect of exposure : Not applicable
Symptom of exposure
Inhalation : Intentional exposure to ink vapors may cause respiratory irritation.
Ingestion : May cause upset stomach.
Skin contact : Ink contact with skin may cause irritation, swelling, or redness.
It is not expected to cause an allergic skin reaction.
Eye contact : Ink contact with eye may be mildly irritating.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Based on the law and regulation in Japan

For ink unless otherwise specified

Ingredients	CAS Number	EINECS Number	Weight %	Component
Ethanol	64-17-5	200-578-6	60-70	All Colors
Copper compound	Non Public	Non Public	6	Green
Diphenylamine	122-39-4	204-539-4	0.5	Black
Triethanolamine	102-71-6	203-049-8	1	Green

4. FIRST AID MEASURES

- Inhalation : Remove subject to ventilated fresh air. Consult physician if necessary.
- Ingestion : Refer for medical attention.
- Skin contact : Wash the affected area under tepid running water using a mild soap.
And refer for medical attention if irritation continues.
- Eye contact : Gently rinse the affected eyes with clean water for at least 15 minutes.
And refer for medical attention if irritation continues.
- First aid facilities : Ensure eyewash and water service are available.
- Medical attention
- Local contamination
: In case of skin or eye contamination treat as under First Aid Measures.
- Systemic poisoning
: There is no specific antidote. Treat symptoms.

5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media : In case of fire, use water spray, foam, dry, chemical powder or carbon dioxide.
- 5.2 Extinguishing media which shall not be used for safety. : None
- 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products : CO₂, CO, NO_x, and SO_x, are produced after combustion.
- 5.4 Special protective equipment for fire-fighters. : Not required
- 5.5 Additional information : None

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions : Use proper ventilation. Use eye and skin protection.
- 6.2 Environmental precautions : Do not dispose of waste to the sewer.
- 6.3 Methods for cleaning up : Absorb spill with material (cloth or paper), then place in a chemical waste containers.
- 6.4 Additional information : None

7. HANDLING AND STORAGE

- 7.1. Handling : Avoid rough handling or dropping.
- 7.1.1 Protective measures : Not required in normal use.
- 7.1.2 Measures to prevent aerosol and dust generation : Not required in normal use.
- 7.1.3 Measures required to protect the environment : Not required in normal use.
- 7.1.4 Specific requirements or handling rules : None
- 7.1.5 Precautions against fire and explosion : Not required in normal use.
- 7.2. Storage : Store in a dry, cool, well-ventilated location , away from possible all source of ignition.
- 7.3. Specific use(s) : Not use it except the ink for writing instruments.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1. Exposure limit values : Not available.
- 8.1.1 Occupational exposure controls. : Not available
- 8.1.2 Biological limit values. : Not available
- 8.1.3 DNEL and PNEC-value(s) as applicable : No data
- 8.2. Exposure controls
- 8.2.1. Occupational exposure controls
- a) Respiratory protection : Not required in normal use
- b) Hand protection : Not required in normal use
- c) Eye protection : Not required in normal use
- d) Skin protection : Not required in normal use
- 8.2.2. Environmental exposure controls
- Ethanol : 1000 ppm(1880 mg/m³)
- Triethanolamine : 5 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

For ink unless otherwise specified

9.1. General information

- Appearance : liquid
[Color] Black, Red, Blue, Green, Violet, Brown, Yellow, Orange
- Odor : Alcohol odor

9.2. Important health, safety and environmental information

- PH : Not applicable
- Boiling point / boiling range : 78.3 degrees Celsius (Ethanol)
- Flash point : 13 degrees Celsius (Ethanol)
- Flammability (solid, gas) : Flammable
- Explosive properties : LEL 3.3 vol%, UEL 19.0 vol% (Ethanol)
- Oxidizing properties : None
- Vapor pressure : 5.88 kPa (at 20 degrees Celsius, Ethanol)
- Relative density : 0.85-0.89 (at 20 degrees Celsius)
- Solubility : Not applicable
- Water solubility : Insoluble

Partition coefficient: n-octanol / water	: -0.30 (lowPow, Ethanol)
Viscosity	: 2.5-5.5 mPa · s (at 20 degrees Celsius)
Vapor density	: 1.59 (Ethanol)
Evaporation rate	: No data

9.3. Other information : None

10. STABILITY AND REACTIVITY

- | | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 10.1. Conditions to avoid | : Fire or intense heat may cause violent rupture of packages.
: Take precautionary measures against static discharges. |
| 10.2. Materials to avoid | : Strong oxidizing agents and reducing agents. |
| 10.3. Hazardous decomposition products | : Heating can release vapours which can be ignited.
: Burning produces obnoxious and toxic fumes, carbon oxides. |

11. TOXICOLOGICAL INFORMATION

For ink unless otherwise specified

- | | |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 11.1 Toxicokinetics, metabolism and distribution | : No data. |
| 11.2 Acute effects (acute toxicity, irritation and corrosivity) | |
| : Acute toxicity Ethanol | : LD ₅₀ 7060 mg/kg (rat oral)
: LDL ₀ 1400 mg/kg (human oral) |
| : Irritation Triethanolamine | : LD ₅₀ 4.92ml/kg (rat) |
| : Irritation Ethanol | : 400 mg open ; Mild (rabbit skin)
: 100 mg/24h ; Moderate (rabbit eye) |
| 11.3 Sensitization | : No data |
| 11.4 Repeated dose toxicity | : No data |
| 11.5 CMR (carcinogenicity, mutagenicity, and toxicity for reproduction) | : No data |

12. ECOLOGICAL INFORMATION

- | | |
|-------------------------------------|-----------|
| 12.1. Ecotoxicity | : No data |
| 12.2. Mobility | : No data |
| 12.3. Persistence and degradability | : No data |
| 12.4. Bioaccumulative potential | : No data |
| 12.5. Results of PBT assessment | : No data |
| 12.6. Other adverse effects | : None |

13. DISPOSAL CONSIDERATIONS

- Follow all regulations in your country.

14. TRANSPORT INFORMATION

For ink unless otherwise specified

- | | |
|------------------|--------|
| 14.1.1 UN number | : 1993 |
| 14.1.2 Class | : 3 |

14.2.1 Proper shipping name	: Not applicable
14.3.1 Packing group	: Not applicable
14.4.1 Marine pollutant	: Not applicable
14.5.1 Other applicable information	: None

15. REGULATORY INFORMATION

These inks are suitable for standard of "Safety of toys" Part3 (EN71-3)

Detrimental metallic elements are not containing.

(Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium)

16. OTHER INFORMATION

The information here is given in good faith, but no warranty, express or implied, is made.

Final determination of suitability of any material is the sole responsibility of the user.

End of SDS