

SAFETY DATA SHEET

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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 : SUPER COLOR-Silver Extra Fine / SILVER MARKER-EF
SUPER COLOR-Silver Fine
SUPER COLOR-Silver Medium / SILVER MARKER-Medium
SUPER COLOR-Silver Broad
SUPER COLOR-Silver Super Jumbo
Product code : SC-S-EF
SC-S-F
SC-S-M / SC-SILVER(A)
SC-S-B
SC-S-J
Preparation name : SC-PM-S(EX)

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)
Facsimile 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.
Acute toxic substance.

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.

Fine, Medium, Broad, Super Jumbo
SILVER MARKER-EF, Medium

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 No.	EINECS Number	Weight %
Methylcyclohexane	108-87-2	203-624-3	15
Medium aliphatic Solvent	64742-88-7	265-191-7	1
Light aromatic Solvent	64742-95-6	265-199-0	
Petroleum Solvent	64742-46-7	265-148-2	5-6
Ethylcyclohexane	1678-91-7	216-835-0	40
Aluminium powder (stabilised)	7429-90-5	231-072-3	10-15

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
- Methylcyclohexane : 400 ppm
- Aluminium powder (stabilised) : 10 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

For ink unless otherwise specified

9.1. General information

- Appearance : liquid
[Color] Silver
- Odor : Organic solvent odor

9.2. Important health, safety and environmental information

Fine, Medium, Broad, Super Jumbo

SILVER MARKER-EF, Medium

PH	: Not applicable
Boiling point / boiling range	: 100.9 degrees Celsius (Methylcyclohexane)
Flash point	: -11.5 degrees Celsius (Methylcyclohexane)
Flammability (solid, gas)	: Flammable
Explosive properties	: None
Oxidizing properties	: None
Vapor pressure	: 6.17 kPa (at 20 degrees Celsius, Methylcyclohexane)
Relative density	: 0.895 (at 20 degrees Celsius)
Solubility	: Not applicable
Water solubility	: Insoluble
Partition coefficient: n-octanol / water	: No data
Viscosity	: 14.0 mPa · s (at 20 degrees Celsius)
Vapor density	: 3.87 (at 20 degrees Celsius, Methylcyclohexane)
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 Methylcyclohexane	: LD ₅₀ 41,500 mg/m ³ /2hrs (mouse inhalation) : LD ₅₀ 4,000 mg/kg (rabbit oral) : LD ₅₀ 2,250 mg/kg (mouse oral)
Ethylcyclohexane	: LD ₅₀ 47,400 mg/kg (rat oral)
Medium aliphatic Solvent	: LD ₅₀ 5,000 mg/kg (rat oral)
Petroleum Solvent	: LD ₅₀ 5 g/kg (rat oral)
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.
- Do not burn when empty.

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

- Follow all regulations in your country.

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