



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** Secureline Superfrost Marker Ink  
**Revision date** 12-19-2011  
**Version #** 01  
**CAS #** Mixture  
**Product use** Provides a permanent method of marking labels and containers  
**Manufacturer/Supplier** Aspen Surgical Products, Inc  
6945 Southbelt Dr. SE  
Caledonia, MI 49316  
**Telephone number** 616-698-7100  
**Emergency** 3E Hotline  
24-Hour Emergency 1-855-350-3591

## 2. Hazards Identification

**Physical state** Liquid.  
**Appearance** Marker containing liquid ink  
**Emergency overview** WARNING  
  
HIGHLY FLAMMABLE LIQUID AND VAPOR.  
May cause drowsiness or dizziness. Causes eye irritation.  
**OSHA regulatory status** This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).  
**Potential health effects**  
**Routes of exposure** Skin contact. Eye contact. Inhalation.  
**Eyes** Health injuries are not known or expected under normal use. However: Causes eye irritation on direct contact.  
**Skin** May cause skin irritation. May be harmful if absorbed through skin.  
**Inhalation** Due to the physical form of the product, the ingredients are not expected to present a hazard by inhalation. However: Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.  
**Ingestion** Not likely, due to the form of the product. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under INHALATION.  
**Target organs** Skin. Eyes. Central nervous system.  
**Chronic effects** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Prolonged exposure may cause chronic effects.  
**Signs and symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Contact may cause irritation with redness, tearing and pain.  
**Potential environmental effects** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
TRADE SECRET COMPONENT	Proprietary	Proprietary
TRADE SECRET SOLVENT	Proprietary	Proprietary

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

### First aid procedures

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops or persists.  
**Skin contact** Wash off immediately with plenty of water. Get medical attention if irritation develops or persists.

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting without advice from poison control center. Immediately call a poison control center or doctor for treatment advice.
<b>Notes to physician</b>	Treat symptomatically. Symptoms may be delayed.
<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Contents of marker are highly flammable. Solvent vapors may form explosive mixtures with air.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO2). Alcohol resistant foam. Powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Fire may produce irritating, corrosive and/or toxic gases.
<b>Protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Firefighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.
<b>Methods for containment</b>	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
<b>Methods for cleaning up</b>	Wipe up spilled material and place in a suitable container for disposal. Clean surface thoroughly to remove residual contamination. For waste disposal, see Section 13 of the MSDS.

## 7. Handling and Storage

<b>Handling</b>	The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Avoid contact with skin and eyes. Wear personal protective equipment. Do not empty into drains.
<b>Storage</b>	Keep tightly closed. Store in a cool, dry, well-ventilated place. Keep away from heat, sparks and open flame. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
TRADE SECRET	STEL	150 ppm
SOLVENT (Proprietary)	TWA	100 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
TRADE SECRET	PEL	435 mg/m3
SOLVENT (Proprietary)		100 ppm

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
TRADE SECRET	STEL	150 ppm
SOLVENT (Proprietary)		

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	Type	Value
	TWA	100 ppm

**Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
TRADE SECRET COMPONENT (Proprietary)	TWA	110 mg/m3
		25 ppm
TRADE SECRET SOLVENT (Proprietary)	STEL	650 mg/m3
		150 ppm
	TWA	435 mg/m3
		100 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
TRADE SECRET SOLVENT (Proprietary)	STEL	651 mg/m3
		150 ppm
	TWA	434 mg/m3
		100 ppm

**Mexico. Occupational Exposure Limit Values**

Components	Type	Value
TRADE SECRET SOLVENT (Proprietary)	STEL	655 mg/m3
		150 ppm
	TWA	435 mg/m3
		100 ppm

<b>Exposure guidelines</b>	Use personal protective equipment as required. Keep working clothes separately.
<b>Engineering controls</b>	Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Avoid contact with eyes. Chemical goggles are recommended.
<b>Skin protection</b>	Chemical resistant gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
<b>Respiratory protection</b>	No specific recommendations due to the small quantities handled. Respiratory protection must be used if air contamination exceeds acceptable level.
<b>General hygiene considerations</b>	When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Marker containing liquid ink
<b>Color</b>	Various.
<b>Odor</b>	Aromatic odor.
<b>Odor threshold</b>	Not available.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>pH</b>	6
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	281 - 284
<b>Flash point</b>	81 °F (27.2 °C) Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.

<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	6 mmHg (20°C)
<b>Vapor density</b>	3.7
<b>Specific gravity</b>	0.9
<b>Solubility (water)</b>	Negligible.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under normal temperature conditions and recommended use.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>Incompatible materials</b>	Strong acids. Strong oxidizing agents. Strong reducing agents.
<b>Hazardous decomposition products</b>	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Components	Test Results
TRADE SECRET COMPONENT (Proprietary)	Acute Dermal LD50 Rabbit: 0.87 g/kg Acute Inhalation LC50 Rat: 1530 mg/l 7 Hours Acute Oral LD50 Mouse: 2.4 g/kg Acute Oral LD50 Rat: 4300 mg/kg
TRADE SECRET SOLVENT (Proprietary)	Acute Oral LD50 Rat: 4.45 g/kg
<b>Acute effects</b>	May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. May irritate eyes and skin.
<b>Local effects</b>	May cause respiratory tract irritation.
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects.
<b>Carcinogenicity</b>	Not classified.
<b>ACGIH Carcinogens</b>	
TRADE SECRET SOLVENT (CAS Proprietary)	A4 Not classifiable as a human carcinogen.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
TRADE SECRET SOLVENT (CAS Proprietary)	3 Not classifiable as to carcinogenicity to humans.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductive effects</b>	Not classified.
<b>Teratogenicity</b>	Not classified.
<b>Symptoms and target organs</b>	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Eye and skin contact: Symptoms include itching, burning, redness and tearing.

## 12. Ecological Information

### Ecotoxicological data

Components	Test Results
TRADE SECRET SOLVENT (Proprietary)	LC50 Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> ): 8 mg/l 96 Hours
<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulation / Accumulation</b>	No data available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Mobility in environmental media</b>	No data available.

### 13. Disposal Considerations

<b>Disposal instructions</b>	Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Waste from residues / unused products</b>	Dispose in accordance with all applicable regulations.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

**Product Specific Note:** Not relevant, due to the form of the product. Otherwise, the following descriptions apply:

#### DOT

##### Basic shipping requirements:

<b>UN number</b>	UN1210
<b>Proper shipping name</b>	Printing ink, flammable or Printing ink related material
<b>Hazard class</b>	3
<b>Packing group</b>	III
<b>Labels required</b>	3

##### Additional information:

<b>Special provisions</b>	
<b>Packaging exceptions</b>	B1, IB3, T2, TP1
<b>Packaging non bulk</b>	150
<b>Packaging bulk</b>	173

#### IATA

##### Basic shipping requirements:

<b>UN number</b>	UN1210
<b>Proper shipping name</b>	Printing ink, flammable or Printing ink related material
<b>Hazard class</b>	3
<b>Packing group</b>	III
<b>Labels required</b>	3

##### Additional information:

<b>Packaging exceptions</b>	
<b>Packaging non bulk</b>	150
<b>Packaging bulk</b>	173

#### IMDG

##### Basic shipping requirements:

<b>UN number</b>	UN1210
<b>Proper shipping name</b>	Printing ink, flammable or Printing ink related material
<b>Hazard class</b>	3
<b>Packing group</b>	III
<b>Labels required</b>	3

##### Additional information:

<b>Packaging exceptions</b>	150
-----------------------------	-----

#### TDG

##### Basic shipping requirements:

<b>Proper shipping name</b>	Printing ink, flammable or Printing ink related material
<b>Hazard class</b>	3
<b>UN number</b>	UN1210
<b>Packing group</b>	III

**Additional information:****Special provisions** B1, IB3, T2, TP1**Basic shipping requirements:****Labels required** 3**Additional information:****Packaging exceptions** 150**Packaging non bulk** 173**Packaging bulk** 242**15. Regulatory Information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US CAA Section 112 Hazardous Air Pollutants (HAPs) List**

GLYCOL ETHERS, EXCLUDING ETHYLENE GLYCOL MONOBUTYL ETHER (CAS Proprietary)

M-XYLENES (CAS Proprietary)

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

TRADE SECRET COMPONENT (CAS Proprietary) 1.0 % N230

TRADE SECRET SOLVENT (CAS Proprietary) 1.0 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

TRADE SECRET COMPONENT (CAS Proprietary) N230 Listed.

TRADE SECRET SOLVENT (CAS Proprietary) Listed.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

TRADE SECRET SOLVENT: 100

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely** No**hazardous substance (40****CRF 355, Appendix A)****Section 311/312 (40 CFR****370)** No

**Drug Enforcement**  
**Administration (DEA) (21 CFR**  
**1308.11-15)**

Not controlled

**Canadian regulations**

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

**WHMIS status**

Controlled

**WHMIS classification**

B2 - Flammable/Combustible  
D1B - Immediate/Serious-TOXIC  
D2A - Other Toxic Effects-VERY TOXIC  
D2B - Other Toxic Effects-TOXIC

**WHMIS labeling****Inventory status****Country(s) or region**

Australia

Canada

**Inventory name**

Australian Inventory of Chemical Substances (AICS)

Domestic Substances List (DSL)

**On inventory (yes/no)\***

Yes

Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Hazardous Substances (Director's): Listed substance**

TRADE SECRET SOLVENT (CAS Proprietary) Listed.

**US - New Jersey Community RTK (EHS Survey): Reportable threshold**

TRADE SECRET COMPONENT (CAS Proprietary) 500 LBS

TRADE SECRET SOLVENT (CAS Proprietary) 500 LBS

**US - New Jersey RTK - Substances: Listed substance**

TRADE SECRET COMPONENT (CAS Proprietary) Listed.

TRADE SECRET SOLVENT (CAS Proprietary) Listed.

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

TRADE SECRET COMPONENT (CAS Proprietary) Listed.

TRADE SECRET SOLVENT (CAS Proprietary) Listed.

**Mexico regulations** This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

## 16. Other Information

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**  
Health: 2\*  
Flammability: 3  
Physical hazard: 1

**NFPA ratings**  
Health: 2  
Flammability: 3  
Instability: 1

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available.

**Issue date** 12-19-2011