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:
- 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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET COMPONENT</td>
<td>Proprietary</td>
<td>Proprietary</td>
</tr>
<tr>
<td>TRADE SECRET SOLVENT</td>
<td>Proprietary</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

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.
Inhalation
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.

Ingestion
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.

Notes to physician
Treat symptomatically. Symptoms may be delayed.

General advice
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

Flammable properties
Contents of marker are highly flammable. Solvent vapors may form explosive mixtures with air.

Extinguishing media
Suitable extinguishing media

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters
Specific hazards arising from the chemical
Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment and precautions for firefighters
Firefighters should wear full protective clothing including self contained breathing apparatus.

Firefighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental Release Measures

Personal precautions
Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

Methods for containment
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Methods for cleaning up
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

Handling
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.

Storage
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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET SOLVENT (Proprietary)</td>
<td>STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET SOLVENT (Proprietary)</td>
<td>PEL</td>
<td>435 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET SOLVENT (Proprietary)</td>
<td>STEL</td>
<td>150 ppm</td>
</tr>
</tbody>
</table>
9. Physical & Chemical Properties

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

Exposure guidelines: Use personal protective equipment as required. Keep working clothes separately.

Engineering controls: Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

Personal protective equipment
Eye / face protection: Avoid contact with eyes. Chemical goggles are recommended.
Skin protection: Chemical resistant gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Respiratory protection: No specific recommendations due to the small quantities handled. Respiratory protection must be used if air contamination exceeds acceptable level.
General hygiene considerations: 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.
Flammability limits in air, lower, % by volume
Not available.
Vapor pressure
6 mmHg (20°C)
Vapor density
3.7
Specific gravity
0.9
Solubility (water)
Negligible.
Partition coefficient (n-octanol/water)
Not available.
Auto-ignition temperature
Not available.
Decomposition temperature
Not available.

10. Chemical Stability & Reactivity Information

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

11. Toxicological Information

Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET COMPONENT (Proprietary)</td>
<td>Acute Dermal LD50 Rabbit: 0.87 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Inhalation LC50 Rat: 1530 mg/l 7 Hours</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Mouse: 2.4 g/kg</td>
</tr>
<tr>
<td>TRADE SECRET SOLVENT (Proprietary)</td>
<td>Acute Oral LD50 Rat: 4300 mg/kg</td>
</tr>
<tr>
<td>TRADE SECRET COMPONENT (Proprietary)</td>
<td>Acute Oral LD50 Rat: 4.45 g/kg</td>
</tr>
</tbody>
</table>

Acute effects
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.
Local effects
May cause respiratory tract irritation.
Chronic effects
Prolonged exposure may cause chronic effects.
Carcinogenicity
Not classified.
Mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive effects
Not classified.
Teratogenicity
Not classified.
Symptoms and target organs
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Eye and skin contact: Symptoms include itching, burning, redness and tearing.

ACGIH Carcinogens
TRADE SECRET SOLVENT (CAS Proprietary) A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity
TRADE SECRET SOLVENT (CAS Proprietary) 3 Not classifiable as to carcinogenicity to humans.

Mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive effects
Not classified.
Teratogenicity
Not classified.
Symptoms and target organs
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

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE SECRET SOLVENT (Proprietary)</td>
<td>LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss): 8 mg/l 96 Hours</td>
</tr>
</tbody>
</table>

Ecotoxicity
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.
Environmental effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulation / Accumulation
No data available.

Partition coefficient (n-octanol/water)
Not available.

Mobility in environmental media
No data available.

13. Disposal Considerations
Disposal instructions
Do not discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with local/regional/national/international regulations.

Waste from residues / unused products
Dispose in accordance with all applicable regulations.

Contaminated packaging
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:
UN number UN1210
Proper shipping name Printing ink, flammable or Printing ink related material
Hazard class 3
Packing group III
Labels required 3
Additional information:
Special provisions
Packaging exceptions B1, IB3, T2, TP1
Packaging non bulk 150
Packaging bulk 173
242

IATA
Basic shipping requirements:
UN number UN1210
Proper shipping name Printing ink, flammable or Printing ink related material
Hazard class 3
Packing group III
Labels required 3
Additional information:
Packaging exceptions
Packaging non bulk 150
Packaging bulk 173
242

IMDG
Basic shipping requirements:
UN number UN1210
Proper shipping name Printing ink, flammable or Printing ink related material
Hazard class 3
Packing group III
Labels required 3
Additional information:
Packaging exceptions 150

TDG
Basic shipping requirements:
Proper shipping name Printing ink, flammable or Printing ink related material
Hazard class 3
UN number UN1210
Packing group III
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 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

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*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