



## SAFETY DATA SHEET

Current Revision: 3, 9/15/2016	Prepared By: Ben Ward, Product Engineer
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### I. IDENTIFICATION

<b>EMERGENCY PHONE:</b> <b>CHEMTREC- (800) 424-9300</b> <b>CCN: 19481</b>	Salem Fabrication Supplies 5901 Gun Club Road Winston-Salem, NC 27103 Information: <b>(800) 234-1982</b>
<b>PRODUCT NAME:</b> Salem Heat Transfer Fluid	
<b>SYNONYMS:</b> N/A	

#### Recommended Use:

Ophthalmic heat transfer fluid.

#### Restrictions:

Professional and industrial use.

### II. HAZARD IDENTIFICATION

#### Classification (§1910.1200):

Acute toxicity, oral - Category 4

Reproductive toxicity- Category 2

Specific target organ toxicity, single exposure - Category 2 (kidneys)

Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

#### Signal Word/Symbols:

GO BEYOND THE EDGE

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5901 Gun Club Road  
Winston-Salem, NC 27103

Office: 800.234.1982 | 336.766.1104

#### CALIFORNIA

10125 Shoemaker Avenue  
Santa Fe Springs, CA 90670

Office: 800.445.6339 | 562.944.6155

#### PENNSYLVANIA

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New Kensington, PA 15068

Office: 724.212.3749

#### WASHINGTON

3801 NE 109th Ave. Suite C  
Vancouver, WA 98682

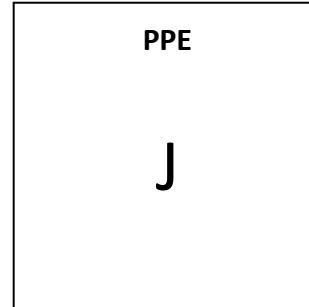
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**WARNING**



**Hazard Statement:**

- Harmful if swallowed.
- Suspected of damaging the unborn child.
- May cause damage to the kidneys if swallowed.
- May cause drowsiness or dizziness.

**Precautionary Statement:**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Do not breathe mist or vapor.
- Wear protective gloves/clothing and eye/face protection.
- If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- If INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- If exposed or concerned call a POISON CENTER or doctor/physician.

**Miscellaneous Hazards:**

Other hazards which do not result in classification: May cause eye, skin and respiratory tract irritation.

**Unknown Acute Toxicity Statement:**

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N/A

### III.COMPOSITION

CHEMICAL NAME:	COMMON NAMES:	CAS:	% BY WEIGHT:
Proprietary	N/A	N/A	N/A

\*Information withheld as a trade secret

#### Classified Impurities and Additives:

N/A

### IV.FIRST AID MEASURES

#### Inhalation:

Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. Get medical attention if symptoms persist.

#### Skin Contact:

Immediately flush with plenty of water, while removing contaminated clothing. If irritation persists, seek prompt medical attention. Launder clothing before reuse.

#### Eye Contact:

Immediately flush eyes with plenty of water. After flushing, remove any contact lenses if worn, and continue flushing for at least 5 to 10 minutes. If irritation persists, seek prompt medical attention.

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**Ingestion:**

Call a physician or poison control center immediately. Induce vomiting ONLY under the direct supervision of qualified medical personnel or a poison control center. Never give anything by mouth to an unconscious person.

**Symptoms/Effects:**

Harmful if swallowed. May cause damage to the kidneys if swallowed. May cause drowsiness or dizziness. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. May cause slight eye and skin irritation. Symptoms include: Redness, swelling, itching and dryness. Suspected of damaging the unborn child.

**Level Of Medical Attention Needed:**

Immediate medical attention is required. May be harmful or fatal if swallowed. Use of ethanol may be helpful to counter the toxic effects of ethylene glycol by interfering with the absorption rate in the stomach and intestine. Onset of symptoms may be delayed for 18 to 24 hours after ingestion. Symptoms may be delayed.

**V. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:**

Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical. Water spray may be useful in cooling equipment exposed to heat and flame.

**Unsuitable Extinguishing Media:**

Do not use a solid water stream as it may scatter and spread fire.

**Specific Hazards:**

Burning produces obnoxious and toxic fumes. Closed containers may build up pressure when exposed to heat and flame.

**Special Protective Equipment:**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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## VI. ACCIDENTAL RELEASE MEASURES

### Personal Precautions:

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus.

### Protective Equipment:

Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

### Emergency Procedures:

US CERCLA Reportable quantity (RQ): Ethylene glycol (5000 lbs / 2270 kg)

### Methods for Cleanup/Removal:

Ventilate the area. Stop spill or leak at source if safely possible. Dike for water control. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

## VII. HANDLING AND STORAGE

### Handling Precautions:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. This material is a harmful liquid. Wear protective gloves/clothing and eye/face protection. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment. Use with adequate ventilation. Do not ingest. Do not breathe mist or vapor. Avoid contact with eyes, skin and clothing. Wash with soap and water after handling. Keep away from extreme heat and flame. Keep away from acids and other incompatibles. Use caution when opening cap. Keep containers tightly closed

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when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

**Safe Storage Conditions:**

Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat,

open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

**Incompatibilities:**

Alkalis, strong oxidizing agents, and strong acids.

**VIII. EXPOSURE CONTROLS AND PROTECTIVE EQUIPMENT**

OSHA PEL:	ACGIH TLV:	OTHER EXPOSURE LIMITS:
Proprietary Ingredients: 50 ppm (final rule limit)	Proprietary Ingredients: 100 mg/m <sup>3</sup> (aerosol)	N/A

**Appropriate Engineering Controls:**

Use sufficient mechanical ventilation to maintain exposures below the TLV. Use local exhaust if mist or spray is generated. Emergency showers and eyewash facilities should be nearby.

**Personal Protective Measures:**

Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Wear impervious gloves, such as butyl rubber. Advice should be sought from glove suppliers.

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Chemical goggles are recommended when there is a potential for splashing. Wear a chemically resistant apron and long sleeves when dispensing, to prevent skin contact.

## IX. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Clear, colorless liquid.

<b>Odor:</b> Little/none	<b>Odor Threshold:</b> N/A	<b>Ph:</b> N/A
<b>Melting/Freezing Point:</b> N/A	<b>Boiling Point:</b> 379 °F (193 °C)	<b>Boiling Range:</b> 379-400 °F (193-204 °C)
<b>Flash Point:</b> 241°F (116°C)	<b>Evaporation Rate:</b> Not known	<b>Flammability (Solid, Gas):</b> N/A
<b>Upper/ Lower Flammability/ Explosive Limit:</b> Not known	<b>Vapor Pressure:</b> Not known	<b>Vapor Density:</b> Not known
<b>Relative Density:</b> 1.115	<b>Solubility (ies):</b> Water, organic solvents	<b>Partition Coefficient: NOctanol/Water:</b> -1.36
<b>Auto Ignition Temperature:</b> Not known	<b>Decomposition Temperature:</b> Not known	<b>Viscosity:</b> Not known

## X. STABILITY AND REACTIVITY

### Reactivity:

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Not normally reactive.

**Chemical Stability:**

Stable under normal conditions.

**Possibility of Hazardous Reactions:**

No dangerous reactions known under conditions of normal use.

**Conditions to Avoid: Static Discharge, Shock, Vibrations, Etc.**

Avoid excessive heat, sparks and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

**Incompatible Materials:**

Alkalis, strong oxidizing agents, and strong acids.

**Hazardous Decomposition Products:**

None known

**XI. TOXICOLOGICAL INFORMATION**

**Possible Exposure Routes (Inhalation Etc.):**

Inhalation, skin, eye, ingestion, and skin absorption.

**Symptoms Related To Toxicological Characteristics:**

Inhalation: If mists are inhaled, may cause tearing, general anesthesia, headache, coughing, respiratory stimulation, nausea, vomiting, pulmonary, kidney and liver damage.

Ingestion: Harmful or fatal if swallowed. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Initially, the central nervous system is stimulated, followed by depression. Could cause cyanosis (bluish discoloration of the skin due to deficient oxygenation of the blood). May potentially result in lethal kidney damage. Could also cause convulsions, coma, respiratory arrest and death.

Skin: May cause mild skin irritation. Product may be absorbed and cause symptoms similar to those listed for ingestion.

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Eyes: May cause mild eye irritation. Symptoms may include inflammation and tearing.

**Delayed, Immediate, and Chronic Effects:**

Prolonged or repeated ingestion may cause bladder or kidney stones.

**Numerical Toxicity Measurements:**

**LC50 (4hr)**

Inhalation, rat: 10.92mg/L

**LD50**

Oral, rat: 4000 mg/kg (rat) 1110-1665mg/kg (Human)

Rabbit, dermal: 9530mg/kg

**NTP/IARC/OSHA Known Carcinogen:**

Hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012):

Reproductive toxicity -Category 2

Suspected of damaging the unborn child.

**XII. ECOLOGICAL INFORMATION**

**Ecotoxicity:**

**Toxicity to Fish**

LC50 / 96h:

22810mg/L (Rainbow

trout) **Toxicity to Daphnia**

EC50 / 48h:

49000mg/L (Daphnia magna)

NOEC / 21 day:

7500-15000mg/L (Daphnia magna)

**Toxicity to Algae**

EC50 / 96h or 72h:

6500-13000mg/L (Green algae)

NOEC / 96h or 72h:

10000mg/L (Green algae)

**Persistence and Degradability:**

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Ethylene glycol is considered to be readily biodegradable.

**Bioaccumulative Potential:**

Partition coefficient n-octanol/water (log Kow): -  
1.36 Bioconcentration factor: 10 **Soil Mobility:**

No data available.

**Other Adverse Effects:**

No data available.

**XIII. DISPOSAL CONSIDERATIONS**

**Waste Residue and Disposal:**

Dispose in accordance with all applicable federal, state, provincial and local regulations.

If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**XIV. TRANSPORT INFORMATION**

<b>UN Number:</b> None	<b>UN Proper Shipping Name:</b> None	<b>Transport Hazard Class (es):</b> None
<b>Packing Group:</b> None	<b>Environmental Hazards:</b> See sec. 12	<b>Transport in Bulk (Annex LI MARPOL 73/78 and IBC Code)</b> None

**Special Precautions:**

If the quantity of Ethylene glycol is greater than 5000 pounds per container, the following DOT shipping description applies:

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RQ UN3082, Environmentally hazardous substances, liquid, n.o.s. (Ethylene glycol), 9, III.

## XV. REGULATORY INFORMATION

### Environmental/ Health/ Safety:

SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical: Yes

Toxic Chemical de Minimus Concentration: 1%

All ingredients are on the TSCA inventory.

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CERCLA Reportable Quantity(RQ) (40 CFR 117.302): 5000 lbs / 2270 kg

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:  
Immediate (Acute) health hazard; Chronic health hazard.

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

State Right to Know Lists: CA, MA, MN, NJ, PA, and RI.

International Inventory Lists: European EINEC, Australia, AICS, Philippine PICCS, Japan ENCS, Korea KECI/KECL, China IECSC, and New Zealand IOC.

## XVI. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Salem Fabrication Supplies. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. Salem Fabrication Supplies assumes no legal responsibility for use of or reliance upon this information.

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