Section 1. CHEMICAL PRODUCT SECTION

Product Name: Teflon(R) Lube PTFE
Product Number: 3115 BULK
General Use: Lubricant with low surface tension
Product Description: Fluorinated, Teflon Lubricant

MANUFACTURER: STS
P.O. Box 949
Amarillo, TX 79105-0949
PHONE: 806/372-1068
FAX: 806/372-1102

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL                                          C.A.S. Number    Weight %
Isopropyl Alcohol                                     67-63-0      3-5
Poly-TFE, omega-hydro-alpha-(methylcyclohexyl)-    65530-85-0      0-1
Poly-TFE, alpha-hydro-omega-(2,2-dichloro-   163440-89-9      <1
  2-fluoroethyl)-
Poly-TFE, alpha-chloro-omega-(1-chloro-         131324-06-6      <1
  1-fluoroethyl)-
Aliphatic hydrocarbon                              64742-47-8      50-55
Oxygenated aliphatic hydrocarbon                   64743-01-7
Oxygenated aliphatic hydrocarbon                   64742-52-5      30-40
Dipropylene glycol monomethyl ether                34590-94-8      2-3
Aliphatic oxygenated compounds
Naphthenic Oil

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>Exposure Limits 8 Hours</th>
<th>TWA (PPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>OSHA PEL: 400</td>
<td>ACGIH TLV: 400</td>
</tr>
<tr>
<td>Poly-TFE, omega-hydro-alpha-(methylcyclohexyl)-</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td>Poly-TFE, alpha-hydro-omega-(2,2-dichloro-</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td>2-fluoroethyl)-</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td>Poly-TFE, alpha-chloro-omega-(1-chloro-</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td>1-fluoroethyl)-</td>
<td>NH</td>
<td></td>
</tr>
<tr>
<td>Aliphatic hydrocarbon</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Oxygenated aliphatic hydrocarbon</td>
<td>NE</td>
<td>NE</td>
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<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Aliphatic oxygenated compounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphthenic Oil</td>
<td>5mg/m3</td>
<td>Mist</td>
</tr>
</tbody>
</table>

Section 3. HAZARD IDENTIFICATION

Emergency Overview:
Potential Health Effects:

INHALATION: Little, if any, effects caused by inhalation of the vapors from this product. In high concentrations, Headache, Giddiness, Mental confusion, Nausea and Irritation of upper respiratory passages.

EYES: Severe Irritant, not likely to cause permanent damage.

SKIN: Mild to severe skin irritant. Prolonged contact can cause redness, swelling and cracking of skin.

INGESTION: Nausea and diarrhea possible.

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Section 4.                  FIRST AID MEASURES

Inhalation:
Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for prompt medical attention.

Eye Contact:
Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

Skin Contact:
Remove contaminated clothing (including shoes) and wash before reuse. Flush with large amounts of water. Use soap if available. If irritation persists, seek medical attention.

Ingestion:
Do not induce vomiting unless directed by a physician. If conscious and alert, give two glasses of water. Seek medical attention immediately.

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Section 5.                  FIRE FIGHTING MEASURES

Flash Point & Method:  68F / 20C TCC Method
Flammable Limits:     LEL: NA     UEL: NA
Autoignition Temperature:  

GENERAL HAZARD:
Combustible. Heating can release vapors which can be ignited.

FIRE FIGHTING INSTRUCTIONS:
Fire fighters should wear self contained, positive-pressure breathing apparatus and avoid skin contact. Cool containers with water spray. Evacuate personnel to a safe area.

FIRE FIGHTING EQUIPMENT:
Water, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS:
Smoke, fumes and oxides of carbon.

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Section 6.                 ACCIDENTAL RELEASE MEASURES

LAND SPILL:
Eliminates ignition sources.
Absorb liquid on appropriate material. Place in sealed container for
disposal. Waste concentrate can be incinerated in an approved fuels incineration program in accordance with state/provincial, and local requirements.

Prevent spilled material from entering sewers, waterways, or low areas.

**WATER SPILL:**
This material would be classified as an oil under the 1990 Clean Water Act. Discharge or spills which cause a sheen on either surface water or waterways/sewers which lead to surface water, must be reported to the National Response Center 1-800-424-8802.

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**Section 7. HANDLING AND STORAGE**

**STORAGE TEMPERATURE:** Ambient  
**STORAGE PRESSURE:** Atmospheric

**GENERAL:**  
Keep container closed when not in use. Store in cool, well ventilated place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied.

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**Section 8. EXPOSURE CONTROL / PERSONAL PROTECTION**

**Engineering Controls:**
(X) Local Exhaust ventilation acceptable.  
( ) Mechanical ventilation recommended.  
( ) Use explosion-proof ventilation equipment.  
( ) Do not use in confined spaces without mechanical ventilation equipment.

See section 2 for component exposure guidelines.

**Personal Protection:**

**RESPIRATOR:**
If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable. Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator.

**HAND PROTECTION:**
(X) Gloves recommended  
(X) Solvex  
( ) Butyl  
( ) Natural Latex  
(X) Neoprene  
(X) Buna  
( ) Cotton/Jersey

**EYE PROTECTION:**
(X) Safety Glasses  
( ) Chemical Goggles  
( ) Full Face Shield

**OTHER RECOMMENDATIONS:**

( ) Rubber Boots  
( ) Splash-proof chemical resistant suit/apron
Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density: 0.85  pH: Neu
Boiling Point: 149°C / 300°F  % Volatile: 100
Freezing Point: NIF  % Solids: 0
Vapor Density (Air=1): 5.0  Evaporation Rate (H2O=1): NIF
Solubility in Water: 60  Viscosity: N/A
Molecular Weight: N/A  Physical State: LIQUID
Non-Exempt VOC (g/l): 750  Odor: NIF
Appearance: Alcohol odor clear liquid

Section 10. STABILITY AND REACTIVITY

GENERAL:
STABLE

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:
None
Reactive alkali metals, strong acids & bases.

HAZARDOUS DECOMPOSITION:
Forced combustion yields carbon oxides.

Section 11. TOXICOLOGICAL INFORMATION

RESULTS OF COMPONENT TOXICITY TEST PERFORMED:
Naphthenic Oil: ORAL RAT (LD50) >5g/kg
Dermal Rabbit (LC50) >3g/kg

HUMAN EXPERIENCE:
Information not available.

Section 12. ECOLOGICAL INFORMATION

FURTHER INFORMATION:
Information not available.

Section 13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification: D001

Federal, State, and Local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14. TRANSPORTATION INFORMATION

U.S. DOT Information
Basic Description: FLAMMABLE LIQUID N.O.S., (ALIPHATIC HYDROCARBONS)
Proper Shipping Name: FLAMMABLE LIQUID N.O.S., (ALIPHATIC HYDROCARBONS)
Hazard Class: 3
Packaging Group: II
UN Number: UN1993
Limitations: MUST HAVE FLAMMABLE LABEL.

IATA
Proper Shipping Name: FLAMMABLE LIQUID N.O.S., (ALIPHATIC HYDROCARBONS)
HYDROCARBONS

Hazard Class: 3
Packing Group: II
UN Number: UN1993

Limitations: For domestic shipments only. For international shipping information, please contact the STS shipping department. Cargo Aircraft Only.

IMO

Proper Shipping Name: FLAMMABLE LIQUID N.O.S., (ALIPHATIC HYDROCARBONS)
Class: 3.2
UN Number: UN1993
Packaging Group: II
EMS: 3-07
MFAG: 311
Marine Pollutant: YES
Canadian TDG: N/A
IMDG: 3271

Limitations:

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Section 15. REGULATORY INFORMATION
UNITED STATES FEDERAL REGULATIONS:

CERCLA/SUPERFUND, 40 CFR 117, 302:
--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986
TITLE III Sections 302, 311, 312 and 313:
Section 302 - Extremely hazardous substances (40 CFR 355):
--- None of the chemicals are Section 302 hazards ---

Section 311/312 - Material Safety Data Sheet Requirements (40 CFR 370)
( ) By our hazard evaluation, this product is non-hazardous.
(X) By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard.
(X) Immediate (acute) health hazard
(X) Delayed (chronic) chronic health hazard
( ) Sudden release of pressure hazard
( ) Reactive hazard
(X) Flammable

Section 313 - List of Toxic Chemicals (40 CFR 372)
This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals.
CHEMICAL C.A.S. NUMBER WEIGHT %
--- None of the chemicals are 313 Toxic Chemicals ---

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D:
Refer to Section 11. for RCRA classification.
FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)

This product contains the following chemicals which are listed:

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>C.A.S. NUMBER</th>
<th>WEIGHT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbon</td>
<td>64742-47-8</td>
<td>50-55</td>
</tr>
</tbody>
</table>

CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:
This product contains the following ingredients which appear on the California proposition 65 list:

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>C.A.S. NUMBER</th>
<th>WEIGHT %</th>
</tr>
</thead>
</table>

--- None of the chemicals are on the Proposition 65 list ---

INTERNATIONAL REGULATIONS:

CANADA WHMIS: NIF
EUROPE EINECS NUMBERS: NIF

Section 16. OTHER INFORMATION

LABEL INFORMATION:
European risk and Safety Phrases: NIF
European Symbols Needed: NIF
Canadian WHMIS Symbols: NIF

NFPA HAZARD RATING:
(2) Fire  (1) Health  (0) Reactivity

REVISION DATES, SECTIONS, REVISED BY:
23-JAN-97, Created, B. Riffel
12-JAN-98, SECTION 14, R. PRICHARD

ABBREVIATIONS USED IN THIS DOCUMENT:
NE – Not Established, NA – Not Applicable, NIF – No Information Found

REFERENCES:
Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data
Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

To the best of our knowledge, the information contained herein is accurate. However, neither STS or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

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