



# Material Safety Data Sheet

## SECTION I: Product and Company Identity:

TRADE NAME (AS LABELED): TS-400 Valve Grease  
 MANUFACTURER'S NAME: T.S. Moly-Lubricants, Inc.  
 MANUFACTURER'S ADDRESS: 6205 Brookhill #6; Houston TX 77087  
 EMERGENCY PHONE: 713/671-2676 Fax: 713/671-9417  
 BUSINESS PHONE: 713/671-2676 Fax: 713/671-9417  
 REVIEWED: September 11, 2006  
 REVIEWED BY: Jo Nell Salling

## SECTION II: Composition /Information on Ingredients

The criteria for listing components in the composition section are as follows: Carcinogens are listed when present at 0.1% or greater; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or greater; nonhazardous components are not listed as being proprietary information. Refer to Section IX for regulatory information.

| Ingredient                      | SARA | CAS No.   | OSHA PEL (mg/m <sup>3</sup> )             | ACGIH TLV (mg/m <sup>3</sup> )            | % Optional  |
|---------------------------------|------|-----------|---|---|-------------|
| Tetrafluoroethylene homopolymer | no   | 9002-84-0 | TWA 5, respirable dust;<br>10, total dust | TWA 5, respirable dust;<br>10, total dust | proprietary |

## SECTION III: Hazards Identification

**SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:** Overexposure to this product may cause mild skin irritation, moderate eye irritation, and possible gastric distress if ingested.  
**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known or reported.  
**CARCINOGENICITY:** NTP? No IARC Monographs? No OSHA regulated? No  
 In accordance with the current OSHA Hazard Communication Standard criteria, this product is not known or reported to be carcinogenic by reference sources including: IARC, NTP, and OSHA.

| HAZARDOUS MATERIAL INFORMATION SYSTEM |             |          |      |
|---------------------------------------|-------------|----------|------|
| HEALTH (BLUE)                         |             | 1        |      |
| FLAMMABILITY (RED)                    |             | 1        |      |
|                                       |             | 0        |      |
| PROTECTIVE EQUIPMENT (WHITE)          |             | B        |      |
| EYES                                  | RESPIRATORY | HANDS    | BODY |
| <b>x</b>                              |             | <b>x</b> |      |
| See Section 8                         |             |          |      |

## SECTION IV: First Aid Measures

**EYES:** Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.  
**SKIN:** Remove any contaminated clothing and wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the

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wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**INGESTION:** If person is conscious and can swallow, give two glasses of water but do not induce vomiting. If vomiting occurs, give fluids again. Consult a physician if symptoms develop. **DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**

**INHALATION:** If overcome from vapor, remove from exposure and call physician. If necessary, provide respiratory support.

## **SECTION V: Fire Fighting Measures**

Flash Point: >500 °F. (based on component information) Method: COC Flammable Limits: NDA

Extinguishing Media: Carbon dioxide, dry chemical, alcohol foam, water spray.

Special Fire Fighting Procedures: Use water to cool containers exposed to fire. Firefighters should use self-contained breathing apparatus and skin protection for acid gas exposure. Do not enter fire area without proper protection. Fight fire from safe distance. If possible, air monitoring should be performed.

Unusual Fire and Explosion Hazards: Fluoropolymers will degrade upon prolonged heating (above 662 F) or in a fire, liberating carbonyl fluoride and hydrogen fluoride (HF). This gas is toxic if inhaled or it comes into contact with moist skin. HF has an ACGIH TLV ceiling limit of 3 ppm (2.6 mg/m<sup>3</sup>) and an OSHA PEL TWA of 3 ppm. Carbonyl fluoride has an ACGIH TLV TWA and OSHA PEL TWA of 2 ppm (mg/m<sup>3</sup>).

## **SECTION VI: Accidental Release Measures**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Recover free product. Add sand, earth, or some other suitable adsorbent. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered sewers, water courses, or extensive land areas.

**RELEASES:** Place spilled material into a covered container for disposal. Extinguish all ignition sources and evacuate the area. Exercise caution--spill area may be slippery. Only personnel equipped with eye protection should be allowed in the area.

## **SECTION VII: Handling and Storage**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store in cool dry area in original or equivalent container in accordance with all applicable regulations. Do not apply high heat or flame to container.

**OTHER PRECAUTIONS:** Wash hands after use and before handling food or applying cosmetics. Do not use tobacco products in the immediate area. Keep containers closed. Keep away from heat, sparks and flames. Do not store near combustible materials.

## **SECTION VIII: Exposure Controls/Personal Protection**

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation. Use a mechanical fan or vent area to outside if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

**LOCAL EXHAUST:** Vent vapors from melt processing away from operating personnel. Local exhaust ventilation at a rate of 50 feet per minute.

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**RESPIRATORY PROTECTION:** No occupational exposure standards have been developed for this material. In situations where exposure to particulates is likely, NIOSH/MSHA approved respirators are recommended. Respirator use limitations made by NIOSH/MSHA or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

**EYE PROTECTION:** ANSI Z87.1 approved safety glasses with side shields or equivalent recommended.

**SKIN PROTECTION:** Use heat insulating gloves for handling hot molds, etc.

## **SECTION IX: Physical and Chemical Properties**

Boiling Point: NDA

Specific Gravity: 1.7618

Vapor Pressure: NDA

Evaporation Rate: NDA

Vapor Density: NDA

Solubility in Water: Negligible

Appearance and Odor: Smooth, slightly tacky, gray grease with no odor.

## **SECTION X: Stability and Reactivity**

**STABILITY:** Unstable: No      Stable: Yes

**CONDITIONS TO AVOID/INCOMPATIBILITY:** High heat; flames, and other ignitions sources, oxidizing materials such as liquid chlorine, concentrated oxygen, etc.

**POLYMERIZATION:** May occur: No      Will not occur: Yes

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS:** Thermal decomposition of fluoropolymers (at temperatures above 350 C/662 F) will generate hydrogen fluoride (HF), which is corrosive, causing burns on contact with skin and other tissue.

**SECTION XI: Toxicological Information:** No data available.

**SECTION XII: Ecological Information:** No data available.

## **SECTION XIII: Disposal Considerations**

**WASTE DISPOSAL METHODS:** Dispose of waste according to all applicable regulations.

## **SECTION XIV: Transport Information**

This material is not regulated as a DOT hazardous material.

## **SECTION XV: Regulatory Information**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All components are on the TSCA inventory or are not required to be listed on the TSCA inventory.

## **SECTION XVI: Other Information**

**Disclaimer:** Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of this product for particular uses are beyond our control. Users should make their own investigation to determine the suitability of the information or products for their respective purposes.