



# Material Safety Data Sheet

## SECTION I: Product and Company Identity:

TRADE NAME (AS LABELED): **TS-801 Dry Film Moly**  
 MANUFACTURER'S NAME: T.S. Moly-Lubricants, Inc.  
 MANUFACTURER'S ADDRESS: 6205 Brookhill Drive Suite 6, Houston TX 77087  
 EMERGENCY PHONE: 713/671-2676 Fax: 713-671-9417  
 BUSINESS PHONE: 713/671-2676 Fax: 713/671-9417  
 REVIEWED BY: Jo Nell Salling DATE: March 10, 2010

## 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
Propane/N-Butane	no	68476-86-8	1000 ppm	600 ppm	proprietary
Methylene chloride (Dichloromethane) *	yes	75-09-2	TWA: 25 ppm STEL: 125 ppm 12.5 ppm (8 hr TWA-Action Level)	50 ppm	62-78
Isopropyl alcohol	no	67-63-0	400 ppm	400 ppm	proprietary

Comment: Item marked with a \* is a chemical known to the State of California to cause cancer.

## SECTION III: Hazards Identification

**WARNING!** Harmful if swallowed, inhaled or absorbed through skin, affects central nervous system, liver, cardiovascular system, and blood. Causes irritation to skin, eyes and respiratory tract. Suspected cancer hazard. Risk of cancer depends on level and duration of exposure.

### POTENTIAL HEALTH EFFECTS:

**INHALATION:** Causes irritation to respiratory tract. Causes formation of carbon monoxide in blood which affects cardiovascular system and central nervous system. Continued exposure may cause increased lightheadedness, staggering, unconsciousness and even death.

**INGESTION:** May cause irritation of the gastrointestinal tract with vomiting. If vomiting results in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract may produce symptoms of central nervous system depression ranging from lightheadedness to unconsciousness.

**SKIN CONTACT:** Can cause irritation, redness and pain. May be absorbed through skin, however evaporates very rapidly.

**EYE CONTACT:** Vapors can cause eye irritation. Contact can produce pain, inflammation and temporal eye damage.

### HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH (BLUE)	2		
FLAMMABILITY (RED)	3		
REACTIVITY (YELLOW)	1		
PROTECTIVE EQUIPMENT (WHITE)	B		
EYES	RESPIRATORY	HANDS	BODY
X	X	X	X

See Section 8

# MATERIAL SAFETY DATA SHEET

TS-801 Dry Film Moly

Page 2 of 3

**CHRONIC EXPOSURE:** Can cause headache, mental confusion, depression, liver effects, kidney effects, bronchitis, loss of appetite, nausea, lack of balance, and visual disturbances. Can cause dermatitis upon prolonged skin contact. Methylene chloride may cause cancer in humans.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Persons with preexisting skin disorders, eye problems, impaired liver, kidney, respiratory or cardiovascular function may be more susceptible to the effects of this substance.

**CARCINOGENICITY:** NTP? 2 (\*) "Substances or groups of substances, and medical treatments which may reasonably be anticipated to be carcinogens." IARC Monographs? 2B (\*) "The agent is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans. OSHA regulated as carcinogen: No

Carcinogen ratings apply to a chemical component identified by (\*) in Section II, page 1.

## **SECTION IV: First Aid Measures**

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**INGESTION:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

**SKIN:** Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing and thoroughly clean shoes before reuse.

**EYES:** Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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

**Flash Point:** (for aerosol) flame extension > 12 inches. **Method:** Consumer Products Safety Commission Standard for checking flammability of pressurized products.

**Flammable Limits:** NDA **Extinguishing Media:** Carbon dioxide, dry chemical, water, fog, foam

**Special Fire Fighting Procedures:** Firefighters should wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Structural firefighters' clothing provides only limited protection to the combustion products of this material.

**Unusual Fire and Explosion Hazards:** Contents under pressure. Exposure to temperatures above 120 F may cause bursting.

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

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Contain spill and wipe up with rag. Spilled residue should be absorbed and placed in closed container. Any dried material should be removed with suitable solvent with K.B. Value in excess of 30.

## **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. Keep away from heat or open flame.

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

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the exposure limits in Section II. If required, local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

**RESPIRATORY PROTECTION:** If the exposure limit is exceeded, wear a supplied air, full-face piece respirator, airtight hood, or full-face piece self-contained breathing apparatus.

# MATERIAL SAFETY DATA SHEET

TS-801 Dry Film Moly

Page 3 of 3

EYE PROTECTION: Use chemical safety goggles and/or a full face shield where splashing is possible.

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Neoprene is a recommended material for PPE. Natural rubber and polyvinyl chloride ARE NOT recommended materials for PPE.

## SECTION IX: Physical and Chemical Properties

Boiling Point: NDA                      Specific Gravity: 1.34                      Vapor Pressure: NDA  
Evaporation Rate: 1 (Butyl acetate=1)                      Vapor Density: 1 (Air=1)  
Solubility in Water: 0%                      Appearance and Odor: Charcoal gray spray with mild sweet odor

## SECTION X: Stability and Reactivity

STABILITY: Unstable: No                      Stable: Yes

CONDITIONS TO AVOID/INCOMPATIBILITY: Strong acids, alkalis, oxidizers, high heat

POLYMERIZATION: May occur: No                      Will not occur: Yes

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposes in a flame or hot surface to form toxic gas phosgene and corrosive mists of hydrochloric acid. Carbon dioxide and carbon monoxide may form when heated to decomposition

**SECTION XI: Toxicological Information (Dichloromethane):** Oral rat LD50: 1600 mg/kg; inhalation rat LC50: 52 g/m<sup>3</sup>.

REPRODUCTIVE TOXICITY: Dichloromethane has been linked to spontaneous abortions in humans.

**SECTION XII: Ecological Information (Dichloromethane):** Environmental Fate: When released into the soil, this material is expected to quickly evaporate but may leach into groundwater. When released into water it is expected to quickly evaporate but may biodegrade to a moderate extent. It has a log octanol-water partition coefficient <3.0. It is not expected to significantly bioaccumulate. When released into the air, it may be moderately degraded by reaction with photochemically produced hydroxyl radicals. It is expected to have a half-life >30 days. It may be removed from the atmosphere to a moderate extent by wet deposition.

ENVIRONMENTAL TOXICITY: The LC50/96-hr values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

**SECTION XIII: Disposal Considerations:** WASTE DISPOSAL METHODS: Residue should be kept in tightly sealed containers and disposed of in accordance with all applicable regulations.

## SECTION XIV: Transport Information

DOT: ORM-D or Consumer Commodity

IMDG: Proper Shipping Name: AEROSOLS, FLAMMABLE, CONTAINING SUBSTANCES IN DIVISION 6.1, PACKING GROUP III (CONTAINS LIQUID PETROLEUM GAS, DICHLOROMETHANE) CLASS 2.1, UN1950, labels: Flammable gas, Toxic

Reference North American Emergency Response Guidebook (2000): Guide 160, pgs 284-285

## SECTION XV: Regulatory Information

Ingredient: Methylene Chloride; Chemical Inventory Status - Part I

TSCA: yes EC: yes Japan: yes Korea: yes Canada, DSL: yes NDSL: no

Federal, State & International Regulations, Part I: SARA 302 RQ: No, TPS: No

(Part 2) CERCLA: 1000 RCRA 261.33 UO80, TSC 8(d): No Chemical Weapons Convention: No

TSCA 12(b): No CDTA: No SARA 311/312: Acute: Yes, Chronic: Yes

## 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.