

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** STARRETT M-1 All Purpose Lubricant Low VOC

**PART NUMBER:** MI 95173

**GENERAL USE:** Aerosol lubricant

**PRODUCT DESCRIPTION:** Aerosol, amber liquid



**MANUFACTURER'S NAME**

The L.S. Starrett Company

**DATE PREPARED:** October 12, 2005

**SUPERSEDES:** March 10, 2005

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**ADDRESS (NUMBER, STREET, P.O. BOX)**

121 Crescent St.

**TELEPHONE NUMBER FOR INFORMATION**

(978) 249-3551

(CITY, STATE AND ZIP CODE)

Athol, MA 01331

**COUNTRY**

USA

**EMERGENCY TELEPHONE NUMBER**

CHEM • TEL (800) 255-3924 Outside USA (813) 248-0585

**DISTRIBUTOR'S NAME**

Same

**ADDRESS (NUMBER, STREET, P.O. BOX)**

**TELEPHONE NUMBER FOR INFORMATION**

(CITY, STATE AND ZIP CODE)

**COUNTRY**

**EMERGENCY TELEPHONE NUMBER**

## SECTION 2 - HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS          | %<br>(by weight) | CAS #      | EINECS #  | Hazard<br>Symbol | RISK PHRASES<br>Full Text Section 16 |
|-------------------------------|------------------|------------|-----------|------------------|--------------------------------------|
| Hydrotreated light distillate | 60 - 90          | 64742-47-8 | 265-149-8 | Xn               | R-65, 66, 67                         |
| Petrolatum                    | 7 - 13           | 8009-03-8  | 232-373-2 | NC               | Not classified                       |
| PROPELLANT                    |                  |            |           |                  |                                      |
| Carbon dioxide                | not specified    | 124-38-9   | 204-696-9 | NC               | Not classified                       |

## SECTION 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Aerosol, amber liquid, potentially hazardous vapors. Contains carbon dioxide propellant. Flammable as defined by DOT and TDG for Air / Ocean transport. Classified by DOT as Combustible for ground transport in containers less than 120 gallons. Classified as Combustible by OSHA. Can cause serious or fatal complications if swallowed. Can cause eye and skin irritation upon contact. Inhalation of vapors can cause anesthetic effect leading to death in poorly ventilated areas. Hazard symbols for this product - Xn. Risk Phrases - R10 65

### POTENTIAL HEALTH EFFECTS

**INHALATION:** High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.

**SKIN:** Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis.

**EYES:** High vapor concentration or contact may cause irritation and discomfort.

**INGESTION:** May result in vomiting; aspiration of vomitus into the lungs must be avoided; DO NOT induce vomiting. Minute amounts aspirated into the lungs can produce severe lung injury, chemical pneumonitis, pulmonary edema or death.

**CARCINOGENICITY**

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

|                                                                                                                                                                                                                                                                                                                                                               |         |                 |          |            |         |                 |          |             |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|----------|------------|---------|-----------------|----------|-------------|--|
| MATERIAL SAFETY DATA SHEET                                                                                                                                                                                                                                                                                                                                    |         |                 |          |            |         |                 |          |             |  |
| PRODUCT NAME: STARRETT M-1 All Purpose Lubricant Low VOC<br>October 12, 2005                                                                                                                                                                                                                                                                                  |         |                 |          |            |         |                 |          | Page 2 of 4 |  |
| <b>SECTION 4 - FIRST AID MEASURES</b>                                                                                                                                                                                                                                                                                                                         |         |                 |          |            |         |                 |          |             |  |
| INHALATION: Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.                                                                                                                                                                          |         |                 |          |            |         |                 |          |             |  |
| SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.                                                                                                                                                                                       |         |                 |          |            |         |                 |          |             |  |
| EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.                                                                                                                                                                                                   |         |                 |          |            |         |                 |          |             |  |
| INGESTION: DO NOT induce vomiting; if vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs; seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.                                                                                                                    |         |                 |          |            |         |                 |          |             |  |
| <b>SECTION 5 - FIRE FIGHTING MEASURES</b>                                                                                                                                                                                                                                                                                                                     |         |                 |          |            |         |                 |          |             |  |
| GENERAL HAZARDS: Product is combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.                                                                                                                                                                                                                  |         |                 |          |            |         |                 |          |             |  |
| EXTINGUISHING MEDIA<br>Carbon dioxide, water, water fog, dry chemical, chemical foam.                                                                                                                                                                                                                                                                         |         |                 |          |            |         |                 |          |             |  |
| FIRE FIGHTING PROCEDURES<br>Self - contained respiratory equipment; cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat.                                                                                                                                                                                          |         |                 |          |            |         |                 |          |             |  |
| UNUSUAL FIRE AND EXPLOSION HAZARDS<br>Closed containers can explode due to buildup of pressure when exposed to extreme heat.                                                                                                                                                                                                                                  |         |                 |          |            |         |                 |          |             |  |
| HAZARDOUS COMBUSTION PRODUCTS<br>Smoke, fumes, oxides of carbon                                                                                                                                                                                                                                                                                               |         |                 |          |            |         |                 |          |             |  |
| <b>SECTION 6 - ACCIDENTAL RELEASE MEASURES</b>                                                                                                                                                                                                                                                                                                                |         |                 |          |            |         |                 |          |             |  |
| STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: COMBUSTIBLE - Evacuate and ventilate area; remove all sources of sparks, ignition and open flames; confine and absorb into approved absorbent; place material into approved containers for disposal; do not wash to sewer or waterway.                                                             |         |                 |          |            |         |                 |          |             |  |
| <b>SECTION 7 - HANDLING AND STORAGE</b>                                                                                                                                                                                                                                                                                                                       |         |                 |          |            |         |                 |          |             |  |
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: This material is combustible. It should be stored in tightly closed containers in a cool, well ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors. |         |                 |          |            |         |                 |          |             |  |
| <b>SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION</b>                                                                                                                                                                                                                                                                                                    |         |                 |          |            |         |                 |          |             |  |
| HAZARDOUS COMPONENTS                                                                                                                                                                                                                                                                                                                                          | NIOSH   |                 |          |            | ACGIH   |                 |          |             |  |
|                                                                                                                                                                                                                                                                                                                                                               | TWA ppm | TWA mg/m3       | STEL ppm | STEL mg/m3 | TWA ppm | TWA mg/m3       | STEL ppm | STEL mg/m3  |  |
| Hydrotreated light distillate                                                                                                                                                                                                                                                                                                                                 | 500     | 2000            |          |            |         |                 |          |             |  |
| Petrolatum                                                                                                                                                                                                                                                                                                                                                    |         | Not established |          |            |         | Not established |          |             |  |
| PROPELLANT                                                                                                                                                                                                                                                                                                                                                    |         |                 |          |            |         |                 |          |             |  |
| Carbon dioxide                                                                                                                                                                                                                                                                                                                                                | 5000    | 9000            | 30000    | 54000      | 5000    | 9000            | 30000    | 54000       |  |
| <b>PERSONAL PROTECTION:</b>                                                                                                                                                                                                                                                                                                                                   |         |                 |          |            |         |                 |          |             |  |
| RESPIRATORY PROTECTION (SPECIFY TYPE): None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.                                                                                    |         |                 |          |            |         |                 |          |             |  |
| PROTECTIVE GLOVES: Neoprene gloves, butyl or nitrile rubber gloves with cuffs.                                                                                                                                                                                                                                                                                |         |                 |          |            |         |                 |          |             |  |
| EYE PROTECTION: Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.                                                                                                                                                                                                                                        |         |                 |          |            |         |                 |          |             |  |
| OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyewash station nearby                                                                                                                                                                                                                                                                                         |         |                 |          |            |         |                 |          |             |  |
| WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.                                                                                                                                                                                                                              |         |                 |          |            |         |                 |          |             |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                                                                                                                                                                                              |                                         |
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| <b>MATERIAL SAFETY DATA SHEET</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                                                                                                                                                                                                                              |                                         |
| PRODUCT NAME: STARRETT M-1 All Purpose Lubricant Low VOC<br>October 12, 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                                                                                                                                                                                                                              | Page 3 of 4                             |
| <b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                                                                                                                                                                                                                              |                                         |
| APPEARANCE AND ODOR<br>Amber liquid, pleasant characteristic odor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | VAPOR PRESSURE<br>< 0.5 mm Hg @ 20° C (liquid) / 856 psia @ 70° F (propellant)                                                                                                                                               |                                         |
| VOLATILE ORGANIC COMPOUNDS (Total VOC's)<br>327 grams / liter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         | SPECIFIC GRAVITY (WATER = 1)<br>0.8 (liquid phase)                                                                                                                                                                           |                                         |
| BOILING POINT / BOILING RANGE<br>370 - 470° F (187.8 - 243.3° C) (liquid phase)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | SOLUBILITY IN WATER<br>Negligible                                                                                                                                                                                            |                                         |
| FLASH POINT<br>152° F ( 67° C) TCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | VISCOSITY<br>Like that of water                                                                                                                                                                                              |                                         |
| FLAMMABLE LIMITS<br>LEL: 1.0% UEL: 6.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | VAPOR DENSITY (AIR = 1)<br>> 1                                                                                                                                                                                               |                                         |
| AUTOIGNITION TEMPERATURE<br>Not determined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         | EVAPORATION RATE (WATER = 1)<br>< 1                                                                                                                                                                                          |                                         |
| <b>SECTION 10 - STABILITY AND REACTIVITY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                                                                                                                                                                                                                              |                                         |
| STABILITY<br>UNSTABLE:<br>STABLE: XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | CONDITIONS TO AVOID: Extreme temperatures, open flames.                                                                                                                                                                      |                                         |
| INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         |                                                                                                                                                                                                                              |                                         |
| HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         |                                                                                                                                                                                                                              |                                         |
| HAZARDOUS POLYMERIZATION<br>MAY OCCUR:<br>WILL NOT OCCUR: XXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         | CONDITIONS TO AVOID: None                                                                                                                                                                                                    |                                         |
| <b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |                                                                                                                                                                                                                              |                                         |
| Hazardous Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CAS #<br>EINECS #       | LD50 of Ingredient<br>(Specify Species and Route)                                                                                                                                                                            | LC50 of Ingredient<br>(Specify Species) |
| Hydrotreated light distillate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 64742-47-8<br>265-149-8 | > 5000 mg / kg<br>Oral - rat                                                                                                                                                                                                 | Not determined                          |
| Petrolatum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 8009-03-8<br>232-373-2  | Not established                                                                                                                                                                                                              | Not established                         |
| <b>PROPELLANT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                                                                                                                                                                                                                              |                                         |
| Carbon dioxide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 124-38-9<br>204-696-9   | Information not found                                                                                                                                                                                                        | Information not found                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                                                                                                                                                                                              |                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                                                                                                                                                                                              |                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         |                                                                                                                                                                                                                              |                                         |
| <b>SECTION 12 - ECOLOGICAL INFORMATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                                                                                                                                                              |                                         |
| No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.                                                                                                                                                     |                         |                                                                                                                                                                                                                              |                                         |
| <b>SECTION 13 - DISPOSAL CONSIDERATIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                                                                                                                                                                                                                              |                                         |
| WASTE DISPOSAL METHOD: According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used. Dispose of in accordance with Local, State, and Federal Regulations. This product may produce hazardous vapors in a closed disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway. |                         |                                                                                                                                                                                                                              |                                         |
| <b>SECTION 14 - TRANSPORT INFORMATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                                                                                                                                                                                                                              |                                         |
| PROPER SHIPPING NAME: Consumer Commodity<br>DOT HAZARD CLASS / Pack Group: ORM - D / None<br>REFERENCE: 49 CFR 173.306<br>UN / NA IDENTIFICATION NUMBER: None<br>LABEL: CONSUMER COMMODITY<br>HAZARD SYMBOLS: None                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | IATA HAZARD CLASS / Pack Group: See Note below<br>IMDG HAZARD CLASS: See Note below<br>RID/ADR Dangerous Goods Code: See Note below<br>UN TDG Class / Pack Group: See Note below<br>Hazard Identification Number (HIN): None |                                         |
| Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.                                                                                                                                                                                                                                                                                                                  |                         |                                                                                                                                                                                                                              |                                         |

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME: STARRETT M-1 All Purpose Lubricant Low VOC  
October 12, 2005

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## SECTION 15 - REGULATORY INFORMATION

### TSCA (USA - Toxic Substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

### SARA TITLE III (USA - Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories

Immediate health, sudden release of pressure

313 Reportable Ingredients:

None

### CERCLA (USA - Comprehensive Response Compensation and Liability Act)

None

### California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

### CPR (Canadian Controlled Products Regulations)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: A, B3

### IDL (Canadian Ingredient Disclosure List)

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

### DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

### EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

WGK Water Quality Index: nwg

VbK Index: Not applicable

### RISK PHRASES:

R65 Damaging to lungs when swallowed  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

### SYMBOL(S) REQUIRED FOR LABEL

Harmful



### SAFETY PHRASES:

S2 Keep out of the reach of children.

## SECTION 16 - OTHER INFORMATION

### Notes & full R-Phrase text

R65 Damaging to lungs when swallowed  
R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

### HMIS HAZARD RATINGS

|                               |   |                           |              |
|-------------------------------|---|---------------------------|--------------|
| HEALTH                        | 1 | * = Chronic Health Hazard | 2 = MODERATE |
| FLAMMABILITY                  | 2 | 0 = INSIGNIFICANT         | 3 = HIGH     |
| PHYSICAL HAZARD               | 0 | 1 = SLIGHT                | 4 = EXTREME  |
| PERSONAL PROTECTIVE EQUIPMENT | B | Safety Glasses, Gloves    |              |

### REVISION SUMMARY:

This MSDS has been revised in the following sections:

Section 14 - DOT Transportation  
Section 15 - Text

MSDS Prepared by: Chem-Tel, Inc.

1305 N. Florida Ave.

Tampa, Florida USA 33602

(800) 255-3924 Outside USA (813) 248-0573

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.