

## Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 04/22/2016

Revision: 04/22/2016

### 1 Identification

- **Product identifier**
- **Trade name:** Starrett M-1 All Purpose Lubricant Low VOC
- **Product code:** 93221, 93227, 93233
- **Recommended use and restriction on use**
- **Recommended use:** Lubricant
- **Restrictions on use:** Contact manufacturer
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
The L.S. Starrett Company  
121 Crescent St.  
Athol, MA 01331  
(978) 249-3551
- **Emergency telephone number:**  
ChemTel Inc.  
+1 (800)255-3924, +1 (813)248-0585

### 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Flam. Liq. 4 H227 Combustible liquid.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS08

- **Signal word:** Danger
- **Hazard statements:**  
H227 Combustible liquid.  
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements:**  
P210 Keep away from flames and hot surfaces. – No smoking.  
P280 Wear protective gloves / eye protection / face protection.  
P370+P378 In case of fire: Use foam, powder, or carbon dioxide for extinction.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P331 Do NOT induce vomiting.  
P405 Store locked up.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Classification system**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 2  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0  
FIRE 2 Fire = 2  
REACTIVITY 0 Reactivity = 0

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Components:**

64742-47-8	Distillates (petroleum), hydrotreated light		Asp. Tox. 1, H304 Flam. Liq. 4, H227	>80%
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- **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

## 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Take affected persons out into the fresh air.

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air and to be sure to call for a doctor.

In case of irregular breathing or respiratory arrest provide artificial respiration.

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Immediately rinse with water.

If skin irritation continues, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

A person vomiting while lying on their back should be turned onto their side.

Do not induce vomiting; immediately call for medical help.

- **Most important symptoms and effects, both acute and delayed:**

Headache

Breathing difficulty

Nausea

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Coughing

· **Danger:**

May be fatal if swallowed and enters airways.

Danger of pulmonary edema.

Danger of impaired breathing.

· **Indication of any immediate medical attention and special treatment needed:**

If swallowed, gastric irrigation with added, activated carbon.

If swallowed or in case of vomiting, danger of entering the lungs.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary edema.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Extinguishing powder. Do not use water.

Water fog / haze

Carbon dioxide

Alcohol resistant foam

· **For safety reasons unsuitable extinguishing agents:**

Water stream.

Water spray

· **Special hazards arising from the substance or mixture**

Combustible liquid.

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:**

Eliminate all ignition sources if safe to do so.

Cool endangered receptacles with water spray.

Use large quantities of foam as it is partially destroyed by the product.

## 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures:**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Remove persons from danger area.

Particular danger of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

· **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

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- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable receptacles.  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Keep away from heat and direct sunlight.  
Avoid splashes or spray in enclosed areas.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Combustible liquid.  
Flammable gas-air mixtures may be formed in empty containers/receptacles.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Provide ventilation for receptacles.  
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**  
Do not store together with oxidizing and acidic materials.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Keep containers tightly sealed.
- **Specific end use(s):** No relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

**64742-47-8 Distillates (petroleum), hydrotreated light**

EL (Canada)	Long-term value: 200 mg/m <sup>3</sup> Skin
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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.

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Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

- **Engineering controls:** Provide adequate ventilation.

- **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No relevant information available.

- **Risk management measures**

See Section 7 for additional information.

No relevant information available.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

**Form:**

Liquid

**Color:**

Amber colored

- **Odor:**

Pleasant

- **Odor threshold:**

Not determined.

- **pH-value:**

Not determined.

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· <b>Melting point/Melting range:</b>	Not determined.
· <b>Boiling point/Boiling range:</b>	188 - 243 °C (370 - 469 °F)
· <b>Flash point:</b>	67 °C (153 °F)
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits</b>	
<b>Lower:</b>	1.0 Vol %
<b>Upper:</b>	6.0 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	< 0.5 mmHg
· <b>Density at 20 °C (68 °F):</b>	0.8 g/cm <sup>3</sup> (6.676 lbs/gal)
· <b>Relative density:</b>	Not determined.
· <b>Vapor density at 20 °C (68 °F):</b>	> 1 g/cm <sup>3</sup> (> 8.345 lbs/gal)
· <b>Evaporation rate at 20 °C (68 °F):</b>	< 1 g/cm <sup>3</sup> (< 8.345 lbs/gal)
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No relevant information available.

### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**  
Combustible liquid.  
Reacts with strong acids.  
Reacts with strong oxidizing agents.  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.  
Used empty containers may contain product gases which form explosive mixtures with air.
- **Conditions to avoid:**  
Keep ignition sources away - Do not smoke.  
Keep away from heat and direct sunlight.  
Store away from oxidizing agents.
- **Incompatible materials:** No relevant information available.

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- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Hydrocarbons

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**64742-47-8 Distillates (petroleum), hydrotreated light**

Oral | LD50 | > 5000 mg/kg (rat)

- **Primary irritant effect:**

- **On the skin:** No irritant effect.
- **On the eye:** No irritating effect.

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Skin contact.  
Eye contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** May be fatal if swallowed and enters airways.
- **Repeated dose toxicity:** From product as supplied: None.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** May be fatal if swallowed and enters airways.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No relevant information available.
- **Persistence and degradability:** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

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- **Ecotoxicological effects:**
- **Remark:**  
Due to mechanical actions of the product (e.g. agglutinations), damages may occur.  
The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.
- **Additional ecological information**
- **General notes:**  
This statement was deduced from the properties of the single components.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Contact waste processors for recycling information.  
Product is recyclable as a waste oil. Deliver unused and/or contaminated product to waste oil collectors.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT</b></li> </ul>   | <p>Not regulated.<br/>Classified as combustible under US DOT regulations.<br/>Labeling is only required for single packages <math>\geq 119</math> US gal / 450 L.</p> |
| <ul style="list-style-type: none"> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p>Not regulated.</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>                            | <p>Not regulated.</p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | <p>Not regulated.</p>   |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>                                      | <p>Not regulated.</p>   |

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- **Environmental hazards**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 04/22/2016 / -
- **Abbreviations and acronyms:**
  - ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - DNEL: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Flam. Liq. 4: Flammable liquids, Hazard Category 4
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- **Sources**

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