



MATERIAL SAFETY DATA SHEET

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: STARRETT M-1 All Purpose Lubricant Low VOC		DATE: February 24, 2011
PRODUCT NUMBER(S): 93221, 93227, 93233		
TRADE NAME: STARRETT GENERAL USE: Lubricant CHEMICAL FAMILY: Mixed Organic PRODUCT DESCRIPTION: Amber liquid		
MANUFACTURED FOR: The L.S. Starrett Company	DATE PREPARED: February 24, 2011	
ADDRESS (NUMBER, STREET, P.O. BOX) 121 Crescent St.	SUPERSEDES: December 4, 2009	
(CITY, STATE AND ZIP CODE) Athol, MA 01331	COUNTRY USA	TELEPHONE NUMBER FOR INFORMATION / Customer Service (978) 249-3551
CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER		
		1-800-255-3924 01-813-248-0574 North America Toll Free International

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Hydrotreated light distillate	85	64742-47-8	265-149-8	Xn	R-65, 66, 67
Petrolatum	7 - 13	8009-03-8	232-373-2	None	Not classified

Notes: Hazard symbols and risk phrases based on maximum listed concentration of each hazardous ingredient.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Amber liquid, potentially hazardous vapors. Combustible 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 - R 65, 66, 67

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

CARCINOGENICITY:

NTP? No

IARC MONOGRAPHS? No

OSHA REGULATED?

No

CALIFORNIA, Prop. 65?

No

SECTION 4 - FIRST AID MEASURES

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.

EYES:

Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

SKIN:

Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse, 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.

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SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:

Product is combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

EXTINGUISHING MEDIA:

Carbon dioxide, water fog, dry chemical, chemical foam.

FIRE FIGHTING PROCEDURES:

Firefighters must wear full facepiece self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire - exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material is combustible!

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes, oxides of carbon.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 - HANDLING AND STORAGE

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.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	TLV/TWA ppm	TLV mg/m ³	PEL ppm	PEL mg/m ³
Hydrotreated light distillate	500	2000						
Petrolatum	NE	NE	NE	NE	NE	NE	NE	NE

PERSONAL PROTECTION

RESPIRATORY PROTECTION:

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.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR	VAPOR PRESSURE
Amber liquid, pleasant characteristic odor	< 0.5 mm Hg @ 20° C
VOC	SPECIFIC GRAVITY (WATER = 1)
327 grams/liter	0.8
BOILING POINT / BOILING RANGE	SOLUBILITY IN WATER
370 - 470° F (187.8 - 243.3° C) (liquid phase)	Negligible
FLASH POINT	VISCOSITY
152° F (67° C) TCC	Like that of water
FLAMMABLE LIMITS	VAPOR DENSITY (AIR = 1)
LEL: 1.0% UEL: 6.0%	> 1
AUTO-IGNITION TEMPERATURE	EVAPORATION RATE (WATER = 1)
ND	< 1



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SECTION 10 - STABILITY AND REACTIVITY			
STABILITY	STABLE	x	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: Will not occur.		CONDITIONS TO AVOID: None related to polymerization.	
SECTION 11 - TOXICOLOGICAL INFORMATION			
Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Hydrotreated light distillate	64742-47-8	> 5000 mg / kg Oral - rat	ND
	265-149-8		
Petrolatum	8009-03-8	NE	NE
	232-373-2		
SECTION 12 - ECOLOGICAL INFORMATION			
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.			
SECTION 13 - DISPOSAL CONSIDERATIONS			
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.			
SECTION 14 - TRANSPORT INFORMATION			
PROPER SHIPPING NAME: Not Regulated (less than 119 gal/ 450L) UN 1993, Flammable Liquids, n.o.s. (Bulk Ship)			
DOT HAZARD CLASS / Pack Group: Class 3, PG III (Bulk)		IATA HAZARD CLASS / Pack Group: Class 3, PG III (Bulk)	
REFERENCE: 49CFR170-177		IMDG HAZARD CLASS: Class 3, PG III (Bulk Ship)	
UN / NA IDENTIFICATION NUMBER: UN1993 (Bulk Ship)		RID/ADR Dangerous Goods Code: Class 3, PG III	
LABEL: Flammable Liquid (Bulk Shipments)		TDG Class / Pack Group: Same as US	
HAZARD SYMBOLS: 		Hazard Identification Number (HIN): 30 This product is not regulated for transport when shipped in containers less than 119 US gallons or 450 L. Product must be placarded as a flammable or combustible liquid when shipped in trucks and/or tanks exceeding these quantities. Consult with shippers for further information.	
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.			

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SECTION 15 - REGULATORY INFORMATION			
TSCA (USA - Toxic Substance Control Act):		All components are listed under TSCA Section 8(b).	
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):		Immediate health.	
Acute Health:	Yes	Chronic Health:	Yes
Fire:	Yes	Sudden Release of Pressure:	No
Reactive:	No		
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:		None	
CCPR (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: B3	
CIDL (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.			
CDSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):		Referenced on CDSL	
EINECS (European Inventory of Existing Commercial Chemical Substances):		Referenced	
WGK Water Quality Index:		2	
RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES	
R65 : Damaging to lungs when swallowed. R66 : Repeated exposure may cause skin dryness or cracking. R67 : Vapors may cause drowsiness and dizziness.	 Harmful	S2 : Keep out of the reach of children.	
SECTION 16 - OTHER INFORMATION			
Legend			
NA = Not Applicable		ND = Not Determined	
		NE = Not Established	
		NR = Not Reported	
HMIS HAZARD RATINGS	HEALTH:	1	0 = INSIGNIFICANT
	FLAMMABILITY:	2	1 = SLIGHT
	PHYSICAL HAZARD:	0	2 = MODERATE
	PERSONAL PROTECTIVE EQUIPMENT:	B	3 = HIGH
			4 = EXTREME
REVISION SUMMARY:			
Revised to GHS/E.U. protocols 2/24/2009 supersedes 12/4/2009 issue LB			
MSDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com			
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.			