

**MATERIAL SAFETY DATA SHEET**

Sample Product



Date-Issued : 04/28/2006  
 MSDS Ref. No : SEASTAR  
 Date-Revised : 06/12/2013  
 Revision No : 3

**SEASTAR STEERING FLUID****1. PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** SEASTAR STEERING FLUID  
**GENERAL USE:** Steering Fluid  
**PRODUCT DESCRIPTION:** High VI, Steering Fluid  
**PRODUCT CODE:** HA5430  
**PRODUCT FORMULATION NAME:** Seastar Steering Fluid

**MANUFACTURER**

FUCHS LUBRICANTS CANADA LTD.  
 Pacific Division  
 19829 - 99A Avenue  
 Langley, BC V1M 3G4  
**Contact:** Technical Services Dept.  
**Product Stewardship:** (604) 888-1552

**SUPPLIER**

SEASTAR SOLUTIONS  
 3831 No. 6 Road  
 Richmond, BC V6V 1P6  
**Contact:** (604) 303 - 2827  
**Product Stewardship:** (604) 303 - 2827

**24 HR. EMERGENCY TELEPHONE NUMBERS**

(604) 888-1552

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

<u>INGREDIENT(S)</u>	<u>CAS</u>	<u>% BY WEIGHT</u>
Mineral Oil	68476-77-7	84.357
Non-Mineral Oil	64742-88-7, 8052-41-3, 63148-62-9, 72623-86-0 and a trade secret acrylic copolymer	15.643

**COMMENTS:** Not a controlled product according to WHMIS regulations, OSHA regulations, I.A.T.A. regulations, D.O.T. regulations or M.O.T (TDG) regulations. No hazardous ingredients.

**WHMIS CLASS:** Not controlled under WHMIS

*See Section 8 for Exposure Limits*

**3. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS:** None Expected.

**POTENTIAL HEALTH EFFECTS**

**EYES:** None Expected.

**SKIN:** None Expected.

**INGESTION:** None Expected.

**INHALATION:** None Expected.

**ACUTE TOXICITY:** None known.

**CHRONIC:** None known.

**CARCINOGENICITY:** This product is not listed as a known or suspected carcinogen by IARC, OSHA, or the NTP.

**MUTAGENICITY:** None known.

**REPRODUCTIVE TOXICITY**

**REPRODUCTIVE EFFECTS:** None known.

**TERATOGENIC EFFECTS:** None known.

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**ROUTES OF ENTRY:** Skin contact, eye contact, inhalation, ingestion

**IRRITANCY:** None Expected.

**SENSITIZATION:** None known.

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#### **4. FIRST AID MEASURES**

**EYES:** Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation develops.

**SKIN:** Wash with soap and water.

**INGESTION:** If small amounts are ingested, first aid measures are not likely to be necessary. If larger amounts are ingested or if symptoms of ingestion occur, dilute stomach contents with two glasses of water or milk. (NOTE: Do NOT give anything by mouth to an unconscious person.) Do not induce vomiting without medical supervision. If vomiting occurs spontaneously, keep airway clear. If symptoms of ingestion persist, seek medical attention.

**INHALATION:** Inhalation is not an expected route of exposure. If respiratory irritation occurs, remove employee to fresh air. If symptoms persist, seek immediate medical attention.

**NOTES TO PHYSICIAN:** No further data known.

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#### **5. FIRE FIGHTING MEASURES**

**FLASHPOINT AND METHOD:** 110°C COC (Cleveland Open Cup)

**FLAMMABLE LIMITS:** N. Av.

**AUTOIGNITION TEMPERATURE:** N. Av.

**EXTINGUISHING MEDIA:** In accordance with NFPA guidance, dry chemical, foam, or CO2 fire extinguishers are all acceptable. Note that while water fog extinguishers are also acceptable, do NOT apply a direct stream of water onto burning product because it may cause spreading and increase fire intensity.

**HAZARDOUS COMBUSTION PRODUCTS:** Combustion may produce oxides of carbon and incompletely burned hydrocarbons in the form of fumes and smoke.

**SENSITIVE TO STATIC DISCHARGE:** None known.

**SENSITIVITY TO IMPACT:** None known.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.

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#### **6. ACCIDENTAL RELEASE MEASURES**

**GENERAL PROCEDURES:** Prevent from entering water systems. Mop up, wipe up or soak up with absorbent material or contain in closed vessel.

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#### **7. HANDLING AND STORAGE**

**HANDLING:** Keep away from incompatible substances. Do not take internally. Avoid contact with skin and eyes.

**STORAGE:** Protect product quality by storing indoors and away from extreme temperatures. Close all containers when not in use.

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#### **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** This product contains mineral oil which has a TLV of 5mg/m<sup>3</sup> (1 mg/m<sup>3</sup> in BC) as mist. Good general ventilation should be sufficient. It is recommended that ventilation be designed to maintain airborne concentrations at lowest practicable levels. Ventilation should at a minimum, prevent airborne concentrations from exceeding any exposure limits listed in Section 8 of this MSDS.

##### **PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Wear eye protection appropriate to prevent eye exposure. Where splashing is not likely, chemical safety glasses with side shields are recommended. Where splashing may occur, chemical goggles or full face shield is recommended.

**SKIN:** For prolonged or repeated contact, wear rubber or viton gloves.

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**RESPIRATORY:** Not generally required. If necessary, a respirator may be worn to reduce exposure to vapors, dust, or mist. Select a NIOSH approved respirator for the type of physical character of the airborne material.

**PROTECTIVE CLOTHING:** Coveralls are sufficient. Where splashing or soaking is likely, wear oil or chemical resistant clothing to prevent exposure.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Mild

**APPEARANCE:** Clear yellow

**VAPOR PRESSURE:** N. Av.

**VAPOR DENSITY:** N. Av.

**POUR POINT:** -41°C

**SOLUBILITY IN WATER:** Insoluble

**EVAPORATION RATE:** N. Av.

**SPECIFIC GRAVITY:** 0.845 @15.6°C

**ODOR THRESHOLD:** N. Av.

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## 10. STABILITY AND REACTIVITY

**STABLE:** YES

**HAZARDOUS POLYMERIZATION:** NO

**STABILITY:** Stable.

**POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None known.

**INCOMPATIBLE MATERIALS:** This product is incompatible with strong oxidizing agents.

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## 11. TOXICOLOGICAL INFORMATION

**EYE EFFECTS:** No further toxicological data known.

**SKIN EFFECTS:** No further toxicological data known.

**CARCINOGENICITY:**

**CARCINOGENICITY COMMENTS:** This product is not listed as a carcinogen by IARC, NTP or OSHA.

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** The degree of biodegradability and persistence of this product has not been determined.

**ECOTOXICOLOGICAL INFORMATION:** This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be minimized wherever possible.

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Ensure that collection, transport, treatment and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. Note that use, mixture, processing or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

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## 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)**

**OTHER SHIPPING INFORMATION:** Not otherwise DOT regulated.

**CANADA TRANSPORT OF DANGEROUS GOODS**

**TDG NOTE:** Not Regulated by TDG.

**AIR (ICAO/IATA)**

**NOTE:** Not regulated.

**VESSEL (IMO/IMDG)**

**NOTE:** Not regulated.

## 15. REGULATORY INFORMATION

### UNITED STATES

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA STATUS:** All ingredients in this mixture are in compliance with TSCA.

### CANADA

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

**COMMENTS:** This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations (CPR)* and the MSDS contains all of the information required by the *CPR*.

## 16. OTHER INFORMATION

**APPROVED BY:** Health & Safety Dept.

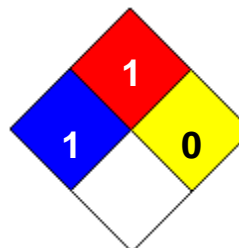
**PREPARED BY:** Health & Safety Dept.

**REVISION SUMMARY** Revision #:3 This MSDS replaces prior MSDS. Any changes in information are as follows:

#### HMIS RATING

<b>HEALTH:</b>	1
<b>FLAMMABILITY:</b>	1
<b>PHYSICAL HAZARD:</b>	0
<b>PERSONAL PROTECTION:</b>	X

#### NFPA CODES



**MANUFACTURER SUPPLEMENTAL NOTES:** Abbreviations used: N. Av. = Not Available, N.A. = Not Applicable, N.D. = Not Determined

**ACGIH TLV (Threshold Limit Value)** - A term used by the American Conference of Governmental Industrial Hygienists to express the airborne concentration of a material to which nearly all persons can be exposed day after day without adverse effects. ACGIH expresses TLVs in three ways:

- **TLV-TWA:** = The allowable Time Weighted Average concentration for a normal 8-hour workday of a 40-hour workweek.
- **TLV-STEL:** = The Short-Term Exposure Limit, or maximum concentration for a continuous 15-minutes exposure period. A maximum of four such periods per day, with at least 60 minutes between exposure periods are allowed, provided that the daily TLV is not exceeded.
- **TLV-C:** = The Ceiling exposure limit; the concentration that should not be exceeded even instantaneously.

**OSHA PEL (Permissible Exposure Limits):** An exposure limit established by the Occupational Safety and Health Administration. May be a time weighted average (TWA) limit or ceiling (C) exposure limit.

**MANUFACTURER DISCLAIMER:** The information contained herein is to the best of knowledge and believed to be accurate. However, since the condition of handling and use are beyond our control we make no guarantee of results, and assume no responsibility for damages incurred through use of this material. It is the responsibility of the user to comply with all Federal, Provincial and local laws and regulations. Physical data is intended solely for use in evaluating the product with respect to WHMIS and does not constitute a product specification.