

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Advalube(TM) F-1020 Specialty Lubricant

Revision date: 12/20/2007

Supplier Rohm and Haas Company

100 Independence Mall West

Philadelphia, PA 19106-2399 United States of America

For non-emergency information contact: 215-592-3000

Emergency telephone

 Spill Emergency
 215-592-3000

 Health Emergency
 215-592-3000

 Chemtrec
 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Dicarboxylic acid esters	Not Hazardous	95.0 - 99.0%
Alcohols	Not Hazardous	1.0 - 5.0%

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

Form Beads
Colour white
Odour slight

Hazard Summary CAUTION!

MAY CAUSE EYE/SKIN IRRITATION.

Potential Health Effects

Primary Routes of Entry: Eye contact Skin contact

Eyes: Direct contact with material can cause the following:

slight irritation

Page 1 of 7 Revision date 12/20/2007

Skin: Prolonged or repeated skin contact can cause the following:

Skin irritation

Ingestion: Material can cause the following:

Vomiting

Abdominal pain

nausea diarrhea

Inhalation: Exposure by inhalation is unlikely.

Inhalation of vapor or mist caused during heating and processing can cause the following:

irritation of nose, throat, and lungs

4. FIRST AID MEASURES

Inhalation: Move to fresh air.

Skin contact: Wash off with soap and plenty of water. If skin irritation persists, call a physician.

Eye contact: Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.

Ingestion: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

Consult a physician.

5. FIRE-FIGHTING MEASURES

Flash point > 200 (> 392.00 °F) Method Not Specified

Lower explosion limit not applicable

Upper explosion limit not applicable

Suitable extinguishing

media:

Extinguishing media - small fires

Carbon dioxide (CO2)

Dry chemical Water spray

Extinguishing media - large fires

Foam

Specific hazards during fire fighting: During a fire, irritating and highly toxic gases and/or fumes may be generated during combustion or decomposition.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective suit.

Further information: Avoid breathing smoke.

Remain upwind.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Page 2 of 7 Revision date 12/20/2007

Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations.

If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

Environmental precautions

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods for cleaning up

Keep spectators away.

Floor may be slippery; use care to avoid falling.

Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapors, mist or gas.

Further information on storage conditions: Avoid temperature extremes during storage; ambient temperature preferred.

Storage

Storage conditions: Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)

Exposure limits are listed below, if they exist.

Eye protection: Safety glasses with side-shields Eye protection worn must be compatible with respiratory protection system employed.

Hand protection: Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene gloves Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Skin and body protection: Wear as appropriate: Chemical resistant apron impervious clothing

Respiratory protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required under normal operating conditions. When dusty conditions are encountered, wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) N95 filters. If oil mist is present, use R95 or P95 filters.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility. Wash thoroughly after handling. Shower or bathe at the end of working. Avoid prolonged or repeated contact with skin.

Page 3 of 7 Revision date 12/20/2007

Engineering measures: Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form Beads
Colour white
Odour slight
pH 5.0 - 7.0

Melting point/range $42.00 - 47.00 \, ^{\circ}\text{C} \, (107.60 - 116.60 \, ^{\circ}\text{F})$ Flash point $> 200 \, (> 392.00 \, ^{\circ}\text{F}) \, \text{Method Not Specified}$

Lower explosion limit not applicable **Upper explosion limit** not applicable Vapour pressure not applicable Relative vapour density not applicable Water solubility insoluble **Density** 0.54 g/cm3 Viscosity, dynamic not applicable **Evaporation rate** not applicable

Percent volatility 0 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Hazardous reactions None known.

Stable

Materials to avoid Acids Strong Oxidizers

polymerization Product will not undergo polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 rat 2,000 mg/kg

Component: Alcohols

Acute dermal toxicity LD50 rabbit >8,000 mg/kg

Component: Alcohols

Page 4 of 7 Revision date 12/20/2007

Skin irritation rabbit slight irritation

Component: Alcohols

Eye irritation rabbit slight irritation

12. ECOLOGICAL INFORMATION

Alcohols

Ecotoxicity effects

Toxicity to fish LC50 Brachydanio rerio (zebra fish) 96 h

>9,950 mg/l

Toxicity to algae EC50 Algae (Scenedesmus subspicatus) 96 h

235 mg/l

Toxicity to aquatic

EC50 Daphnia magna 48 h

invertebrates

1,666 mg/l

13. DISPOSAL CONSIDERATIONS

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Disposal

Waste Classification: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

Contaminated packaging: Can be landfilled or incinerated, when in compliance with local regulations. Refer to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

IMO/IMDG

Not regulated (Not dangerous for transport)

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations

15. REGULATORY INFORMATION

Workplace Classification

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR1910.1200).

Page 5 of 7 Revision date 12/20/2007

This product is not a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE III: Section 311/312 Categorizations (40CFR370): This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

SARA TITLE III: Section 313 Information (40CFR372)

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

CERCLA Information (40CFR302.4)

Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

US. Toxic Substances Control Act (TSCA) All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

16. OTHER INFORMATION

Hazard Rating

	Health	Fire	Reactivity
HMIS	1	1	0

Legend

Logona	
ACGIH	American Conference of Governmental Industrial Hygienists
BAc	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
	Bar denotes a revision from prior MSDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Version: 2.1

Print Date: 12/22/2007

Page 6 of 7 Revision date 12/20/2007

Layout 105510

Page 7 of 7 Revision date 12/20/2007