



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	Molyube Extreme Pressure Grease AC 0
Product Code	23200
Version #	1.1
Revision date	11-05-2011
Synonym(s)	Molyube 126 EP Grease 0
Manufacturer information	Bel-Ray Company, Inc. P.O. Box 526 Farmingdale, NJ 07727 United States of America +1 732 938 2421 CHEMTREC: +1 703-527-3887 (outside USA) CHEMTREC: 800-424-9300 (USA)

2. Hazards Identification

Emergency overview	Harmful in contact with eyes. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Eye contact may result in corneal injury. Contact may irritate or burn eyes. Do not get this material in contact with eyes.
Skin	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Avoid contact with the skin.
Inhalation	Avoid breathing dust/fume/gas/mist/vapors/spray.
Ingestion	Components of the product may be absorbed into the body by ingestion. Do not ingest.
Target organs	Eyes. RESPIRATORY SYSTEM. Skin.
Chronic effects	Conjunctiva. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Corneal damage. Conjunctivitis. Defatting of the skin. Skin irritation. Rash.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Distillates (petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	0 - 100
Distillates (petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	0 - 100
Distillates (petroleum), Solvent-refined Heavy Paraffinic	64741-88-4	0 - 100
Residual Oils (petroleum), Solvent-refined	64742-01-4	0 - 100
White Mineral Oil (petroleum)	8042-47-5	0 - 100
Aluminum, (benzoato-o,o)hydroxy(octadecanoato-o,o)-	54326-11-3	2.5 - 10
Molybdenum Disulfide	1317-33-5	1 - 2.5
Other components below reportable levels		2.5 - 10

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact	Wash off with warm water and soap. Get medical attention if irritation develops and persists.

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If ingestion of a large amount does occur, call a poison control center immediately. Never give liquid to an unconscious person.
Notes to physician	Symptoms may be delayed.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA criteria. Not combustible by OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Hazardous combustion products	Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Avoid release to the environment.
Storage	Class IIIB Combustible Liquid. Keep away from heat, sparks and open flame. Store in a well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components

Type

Value

Form

Distillates (petroleum),
Hydrotreated Heavy
Naphthenic (64742-52-5)

TWA

5 mg/m3

Inhalable Fraction.

US. ACGIH Threshold Limit Values

Components

Type

Value

Form

Aluminum, (benzoato-o,o
)hydroxy(octadecanoato-o,o
)- (54326-11-3)

TWA

1 mg/m3

Respirable fraction.

White Mineral Oil
(petroleum) (8042-47-5)

TWA

5 mg/m3

Inhalable fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components

Type

Value

Form

Distillates (petroleum),
Hydrotreated Heavy
Naphthenic (64742-52-5)

PEL

5 mg/m3

Mist.

Distillates (petroleum),
Hydrotreated Heavy
Paraffinic (64742-54-7)

PEL

2000 mg/m3
500 ppm
5 mg/m3

Mist.

Distillates (petroleum),
Solvent-refined Heavy
Paraffinic (64741-88-4)

PEL

5 mg/m3

Mist.

Residual Oils (petroleum),
Solvent-refined
(64742-01-4)

PEL

2000 mg/m3
500 ppm
5 mg/m3

Mist.

White Mineral Oil
(petroleum) (8042-47-5)

PEL

5 mg/m3

Mist.

Exposure guidelines

Occupational Exposure Limits are not relevant to the current physical form of the product.

Personal protective equipment

Eye / face protection

Do not get in eyes. Chemical goggles are recommended. Eye wash fountain is recommended.

Skin protection

Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

No personal respiratory protective equipment normally required.

General hygiene considerations

Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance

Gel.

Form

Grease

Color

Black.

Odor

Petroleum

Odor threshold

Not available.

pH

Not available.

Vapor pressure

0 hPa estimated

Density

880 kg/m³

Vapor density

Not available.

Boiling point

649.4 °F (343 °C) estimated (Base Oil)

Solubility (water)

Negligible

Solubility (other)

Oil

Specific gravity

0.88

Relative density	Not available.
Flash point	417.2 °F (214 °C) Pensky-Martens Closed Cup (Base Oil)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	500 °F (260 °C) estimated (Base Oil)
VOC	0.03 % estimated
Viscosity	150 cSt (Base Oil)
Percent volatile	0.03 % estimated
Other data	
Drop point	458.6 °F (237 °C)
Flammability class	Combustible IIIB estimated
Flash point class	Combustible IIIB
Viscosity temperature	104 °F (40 °C)

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Not available.
Hazardous decomposition products	No hazardous decomposition products are known. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological Information

Local effects	Components of the product may be absorbed into the body through the skin. Contact may irritate or burn eyes.
Chronic effects	Hazardous by OSHA criteria. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

Aluminum, (benzoato-o,o)hydroxy(octadecanoato-o,o)- ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION (CAS 54326-11-3)	A4 Not classifiable as a human carcinogen.
Distillates (petroleum), Hydrotreated Heavy Naphthenic MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY REFINED, INHALABLE FRACTION (CAS 64742-52-5)	A4 Not classifiable as a human carcinogen.
Distillates (petroleum), Solvent-refined Heavy Paraffinic MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY REFINED, INHALABLE FRACTION (CAS 64741-88-4)	A4 Not classifiable as a human carcinogen.
White Mineral Oil (petroleum) MINERAL OIL, EXCLUDING METAL WORKING FLUIDS, PURE, HIGHLY AND SEVERELY REFINED, INHALABLE FRACTION (CAS 8042-47-5)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

MINERAL OILS, HIGHLY-REFINED (CAS 8042-47-5)	3 Not classifiable as to carcinogenicity to humans.
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12. Ecological Information

Ecotoxicological data

Product	Test Results
Molyube Extreme Pressure Grease AC 0 (Mixture)	EC50 Daphnia: 72444.45 mg/l 48 hours estimated

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability Not available.

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Water Act (CWA) Hazardous substance

State regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - New Jersey RTK - Substances: Listed substance

Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Listed.
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	Listed.
Distillates (petroleum), Solvent-refined Heavy Paraffinic (CAS 64741-88-4)	Listed.
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Listed.
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	Listed.
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	Listed.
White Mineral Oil (petroleum) (CAS 8042-47-5)	Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1*

Flammability: 1

Physical hazard: 0

NFPA ratings

Health: 1

Flammability: 1

Instability: 0

Disclaimer

Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.

Issue date

11-05-2011

This data sheet contains changes from the previous version in section(s):

This document has undergone significant changes and should be reviewed in its entirety.