

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| Ashland P.O. Box 2219 Columbus, OH 43216 | Regulatory Information Number Telephone Emergency telephone number | 1-800-325-3751 614-790-3333 1-800-ASHLAND (1-800-274- 5263) | |
|--|--|--|--|
| Product name | VAL SPECIAL MOLY GREASE 10/400 G | | |
| Product code Product Use Description | 504974 No data | | |

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, grey

CAUTION! MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS.

Potential Health Effects

Exposure routes

Skin contact, Inhalation, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Page 1 / 11



It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Skin

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

Target Organs

No data

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

There are no data available for assessing risk to the fetus from maternal exposure to this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Components | CAS-No. | Concentration |
|----------------------|------------|---------------|
| MOLYBDENUM DISULFIDE | 1317-33-5 | >=1.5-<5% |
| ZINC COMPOUNDS | 68649-42-3 | >=1.5-<5% |

4. FIRST AID MEASURES

Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.



Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse. Hydrocarbons injected into the skin under pressure can cause severe injury. In the event of a high pressure injection injury, worker should obtain immediate medical assistance.

Ingestion

Do not induce vomiting. Give one glass of milk or water, and get medical attention immediately. If possible, do not leave victim unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: No information available. **Treatment:** No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Dry chemical, Foam

Hazardous combustion products

May form:, carbon dioxide and carbon monoxide, Hydrocarbons

Precautions for fire-fighting

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES



Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Scoop or scrape up. Put in container for recovery or disposal. Wash walking surfaces with detergent and water to reduce slipping hazard.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| DISTILLATES (PETROLI | EUM), SOLVENT- | 64742-65-0 | |
|----------------------|---------------------------|-------------|-------------|
| DEWAXED HEAVY PA | | | |
| CAD ON OEL | time weighted average | 1,600 mg/m3 | |
| OEL (QUE) | time weighted average | 5 mg/m3 | Mist. |
| OEL (QUE) | Short term exposure limit | 10 mg/m3 | Mist. |
| CAD AB OEL | time weighted average | 5 mg/m3 | Mist. |
| CAD AB OEL | Short term exposure limit | 10 mg/m3 | Mist. |
| CAD ON OEL | time weighted average | 5 mg/m3 | Mist. |
| CAD ON OEL | Short term exposure limit | 10 mg/m3 | Mist. |
| CAD BC OEL | time weighted average | 0.2 mg/m3 | Mist. |
| OLEFIN POLYMER | | 9002-88-4 | |
| MOLYBDENUM DISULF | IDE | 1317-33-5 | |
| CAD BC OEL | time weighted average | 3 mg/m3 | Respirable. |
| CAD BC OEL | time weighted average | 10 mg/m3 | Inhalable |
| CAD ON OEL | time weighted average | 10 mg/m3 | Inhalable |
| CAD ON OEL | time weighted average | 3 mg/m3 | Respirable. |



Page: 5 Revision Date: 08/26/2010 Print Date: 10/15/2010 MSDS Number: R0076416 Version: 1.8

> Respirable. Total

VAL SPECIAL MOLY GREASE 10/400 G 504974

| OEL (QUE) | time weighted average | 10 mg/m3 |
|------------|-----------------------|----------|
| CAD AB OEL | time weighted average | 3 mg/m3 |
| CAD AB OEL | time weighted average | 10 mg/m3 |

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing covering arms and legs. Wear resistant gloves such as: Neoprene polyvinyl chloride butyl-rubber Natural Rubber

Respiratory protection

Respiratory protection is not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state | liquid |
|-----------------------------|-------------------|
| Form | paste |
| Colour | grey |
| Odour | hydrocarbon-like |
| Boiling point/boiling range | 500 °F / 260 °C |
| Melting point/range | no data available |
| Sublimation point | no data available |



Page: 6 Revision Date: 08/26/2010 Print Date: 10/15/2010 MSDS Number: R0076416 Version: 1.8

VAL SPECIAL MOLY GREASE 10/400 G 504974

| рН | no data available |
|---|--------------------------------|
| Flash point | 441 °F / 227 °C |
| Ignition temperature | no data available |
| Evaporation rate | no data available |
| Lower explosion limit/Upper explosion limit | no data available |
| Particle size | no data available |
| Vapour pressure | no data available |
| Relative vapour density | no data available |
| Density | 0.86 g/cm3 @ 60.1 °F / 15.6 °C |
| Bulk density | No data |
| Water solubility | negligible |
| Solubility | no data available |
| Partition coefficient: n-octanol/water | no data available |
| log Pow | no data available |
| Autoignition temperature | no data available |
| Viscosity, dynamic | no data available |
| Viscosity, kinematic | no data available |
| Solids in Solution | no data available |
| Decomposition temperature | no data available |
| Burning number | no data available |
| Dust explosion constant | no data available |
| Minimum ignition energy | no data available |
| | |

10. STABILITY AND REACTIVITY

Stability

Stable

Conditions to avoid

None known.

Incompatible products

Avoid contact with:, Strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.



Thermal decomposition No data

11. TOXICOLOGICAL INFORMATION

| Acute oral toxicity MOLYBDENUM DISULFIDE | : | LD Lo Rat: 6 g/kg |
|---|---|--------------------------------|
| ZINC COMPOUNDS | : | LD 50 Rat: 2,000 - 5,000 mg/kg |
| | | |
| Acute inhalation toxicity MOLYBDENUM DISULFIDE | : | LC 50 Rat: > 2,820 mg/m3; 4 h |
| ZINC COMPOUNDS | : | no data available |
| | | |
| Acute dermal toxicity | | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | LD 50 Rabbit: (>) 2,000 mg/kg |

12. ECOLOGICAL INFORMATION

| Biodegradability MOLYBDENUM DISULFIDE | : | no data available |
|---|---|-------------------|
| ZINC COMPOUNDS | : | no data available |
| | | |
| Bioaccumulation | | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| | | |
| Ecotoxicity effects | | |
| Toxicity to fish | | |
| | | 1 / 111 |
| MOLYBDENUM DISULFIDE | : | no data available |



Page: 8 Revision Date: 08/26/2010 Print Date: 10/15/2010 MSDS Number: R0076416 Version: 1.8

VAL SPECIAL MOLY GREASE 10/400 G 504974

| ZINC COMPOUNDS | : | no data available |
|---|-----|-------------------|
| Toxicity to daphnia and other aquatic invertebrat | es. | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| Toxicity to algae | | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| Toxicity to bacteria | | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| Biochemical Oxygen Demand (BOD) | | |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| Chemical Oxygen Demand (COD) MOLYBDENUM DISULFIDE | | 1. 11.1 |
| MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | : | no data available |
| Additional ecological information MOLYBDENUM DISULFIDE | : | no data available |
| ZINC COMPOUNDS | | no data available |
| | • | |

13. DISPOSAL CONSIDERATIONS



Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

| 14. TRANSPORT INFORMATION | |
|---------------------------|--|
| | |

REGULATION

| ID | PROPER SHIPPING NAME | *HAZARD | SUBSIDIARY | PACKING | MARINE | |
|--|----------------------|---------|------------|---------|-----------|--|
| NUMBER | | CLASS | HAZARDS | GROUP | POLLUTANT | |
| MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND | | | | | | |

WASTES

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods



U.S. DOT - ROAD

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

WHMIS Classification

D2B Toxic Material Causing Other Toxic Effects

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

Canadian National Pollutant Release Inventory (NPRI)

| OLEFIN POLYMER | 5.99 % | í |
|----------------|--------|---|
| ZINC COMPOUNDS | 1.99 % | |

Notification status

| EU. EINECS US. Toxic Substances Control Act | y (positive listing) y (positive listing) |
|---|--|
| Australia. Industrial Chemical (Notification and Assessment) | n (Negative listing) |
| Act | |
| Canada. Canadian Environmental Protection Act (CEPA). | y (positive listing) |
| Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133) | |
| Japan. Kashin-Hou Law List | n (Negative listing) |
| Korea. Toxic Chemical Control Law (TCCL) List | n (Negative listing) |
| Philippines. The Toxic Substances and Hazardous and Nuclear | y (positive listing) |
| Waste Control Act | |
| China. Inventory of Existing Chemical Substances | y (positive listing) |
| New Zealand. Inventory of Chemicals (NZIoC), as published | y (positive listing) |
| by ERMA New Zealand | |
| | |

| | HMIS | NFPA |
|--------|------|------|
| Health | 1 | 1 |



| Flammability | 1 | 1 |
|------------------|---|---|
| Physical hazards | 0 | |
| Instability | | 0 |
| Specific Hazard | | |

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).