

Material Safety Data Sheet



D-MO

1. Product and company identification

Product name	: D-MO	
Synonym	: SAE 10W30; 15W40; 20W20; 10W; 30; 40; 50	
Material uses	: Lubrication oil.	
Supplier/Manufacturer	: Supplier Federated Co-operatives Limited P. O. Box 1050; 401 - 22nd Street East Saskatoon, SK S7K 3M9 Canada (306) 244-3447	Manufacturer Consumers' Co-operative Refineries Limited P.O. Box 260; 9th Avenue North Regina, SK S4P 3A1 Canada (306) 721-5353
Code	: 189	
Responsible name	: Atrion Regulatory Services, Inc.	
In case of emergency	: CANUTEC (613) 996-6666	

2. Hazards identification

Physical state	: Liquid. [Oily liquid.]
Odor	: Mild.
Emergency overview	: WARNING! CAUSES EYE AND SKIN IRRITATION. Irritating to eyes and skin. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards. Aspiration may occur during swallowing or vomiting resulting in lung damage.
Skin	: Irritating to skin.
Eyes	: Irritating to eyes. Zinc C1-C14 is an eye irritant at concentration of 5% or greater.
Potential chronic health effects	
Chronic effects	: No known significant effects or critical hazards.
Carcinogenicity	: There is no data to indicate any component present at greater than 0.1% that may present a carcinogenic risk.
Mutagenicity	: There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Teratogenicity	: There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: Adverse symptoms may include the following: irritation redness



2 . Hazards identification

Eyes : Adverse symptoms may include the following:
pain or irritation
watering
redness

Medical conditions aggravated by over-exposure : None known.

See toxicological information (section 11)

3 . Composition/information on ingredients

Name	CAS number	%
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1 - 5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 . First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention. Remove contaminated clothing, laundry before reusing.
- Inhalation** : Move person to fresh air. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion** : Give 1/2 glass of milk. Give two glasses of water to drink. If spontaneous vomiting occurs, have victim lean forward so that their head is between their knees. Vomiting may result in aspiration into lungs causing chemical pneumonitis. Get medical attention.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire. Use water, carbon dioxide, dry chemicals or foam. Cool closed containers exposed to fire with water. Avoid spraying water directly into storage container due to the danger of boilover. Move containers from fire if this can be done without risk.
- Not suitable** : None known.
- Hazardous thermal decomposition products** : Incomplete combustion may produce: aldehydes, hydrogen sulfide, short chain alkyl mercaptans, and oxides of carbon, sulphur, calcium, phosphorus and zinc.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). Wear protective equipment including rubber boots.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Wear appropriate respirator when ventilation is inadequate. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Launder contaminated clothing before reuse.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.


8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
- Engineering measures** : Provide mechanical ventilation for confined spaces. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

8 . Exposure controls/personal protection

Eyes	: Splash goggles.
Skin	: Wear chemical resistant clothing if prolonged skin contact is likely.
Respiratory	: A respirator is not needed under normal and intended conditions of product use. Wear an appropriate NIOSH approved respirator if concentration levels exceed the safe exposure limits.
Hands	: Neoprene gloves./ Nitrile gloves.
Personal protective equipment (Pictograms)	: 
HMIS Code/Personal protective equipment	: x
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state	: Liquid. [Oily liquid.]
Flash point	: Open cup: >147°C (>296.6°F)
Auto-ignition temperature	: 413°C (775.4°F)
Color	: Brown.
Odor	: Mild.
Melting/freezing point	: -20°C (-4°F)
Specific gravity	: 0.88 to 0.89
Solubility	: Solubility in water: Slight

10 . Stability and reactivity

Stability	: The product is stable.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Increased risk of fire and explosion when combined with strong oxidizer.
Materials to avoid	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Incomplete combustion might produce carbon oxides, nitrogen, sulfur and calcium.

11 . Toxicological information

Acute toxicity	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards. Aspiration may occur during swallowing or vomiting resulting in lung damage.
Skin	: Irritating to skin.
Eyes	: Irritating to eyes. Zinc C1-C14 is an eye irritant at concentration of 5% or greater.

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

AERG : Not applicable.

Regulatory information

TDG / IMDG / IATA : Not regulated.

15 . Regulatory information

Canada

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).



Canadian lists : **CEPA Toxic substances:** None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Zinc
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

Canada inventory (DSL/NDL) : **Canada inventory:** All components are listed or exempted.

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.

International regulations

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements : CAUSES EYE AND SKIN IRRITATION.

16 . Other information

Hazardous Material Information System (U.S.A.) :

Health	2
Fire hazard	1
Physical Hazard	0
Personal protection	X

HAZARD RATINGS

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.