

Material Safety Data Sheet

MoS2 Anti Friction Engine Treatment



1. Identification of the material and supplier

Names

Product name : MoS2 Anti Friction Engine Treatment
American Code : 2781
German Code : 2500
ADG : -

Supplier

Supplier/Manufacturer : LIQUI MOLY GMBH
Jerg-Wieland-Strasse 4
D-89081 Ulm-Lehr
Tel : +49-0731-1420-0
Fax : +49-0731-1420-71

MOTORACTIVE
Unit 35 Slough Business
Park Holker Street
Silverwater NSW 2128
Phone: (02) 9737 9422
Fax: (02) 9737 9414
andrews@motoractive.com.au
www.motoractive.com.au

Emergency telephone number : +49-0731-1420-0

Uses

Area of application : Industrial applications.
Material uses : Lubricant.
Product type : Liquid.

2. Hazards identification

Classification : Not regulated.
Risk phrases : Not classified.
Statement of hazardous/dangerous nature : NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3. Composition/information on ingredients

Mixture : Yes.

Ingredient name	CAS number	Concentration
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	60 - 100
Molybdenum disulfide	1317-33-5	1 - 3

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

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 : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Obtain medical attention if symptoms occur.

Skin contact : Wash with soap and water. Obtain medical attention if symptoms occur.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Advice to doctor : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5 . Fire-fighting measures

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : In a fire or if heated, a pressure increase will occur and the container may burst.

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.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
sulfur oxides
metal oxide/oxides

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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions : Avoid dispersal of spilt 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. Dilute with water and mop up if water-soluble or absorb with an inert dry 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 the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 spilt 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 ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.

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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Combustible liquid : Combustible liquid Class C2 (AS 1940).

8 . Exposure controls/personal protection

Occupational exposure limits

Ingredient name

Distillates (petroleum), solvent-dewaxed heavy paraffinic

Molybdenum disulfide

Exposure limits

ACGIH TLV (United States).

TWA: 5 mg/m³ 8 hour(s). Form: Mist

NOHSC (Australia, 8/2005).

TWA: 10 mg/m³, (as Mo) 8 hour(s). Form: Insoluble

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.

Exposure controls

Engineering measures

: No special ventilation requirements. 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 compounds and before eating, smoking and using the lavatory and at the end of the day. During formulation, follow good industrial hygiene practice.

Eye protection

: Safety glasses.

Skin protection

: Lab coat.

Respiratory protection

: A respirator is not needed under normal and intended conditions of product use.

Hand protection

: Natural rubber (latex).



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.

Colour

: Silver, grey.

Odour

: Characteristic.

Relative density

: 0.89

Flash point

: Closed cup: 180°C (356°F) [Pensky-Martens.]

Vapour density

: >1 [Air = 1]

Viscosity

: Kinematic (40°C): 0.92 cm²/s (92 cSt)

Solubility

: Insoluble in the following materials: cold water and hot water.

10 . Stability and reactivity

Stability

: The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.

Conditions to avoid

: No specific data.

Materials to avoid

: No specific data.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Eye contact : No known significant effects or critical hazards.

Acute toxicity

Product/ingredient name	Dose	Species	Result	Exposure
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Rabbit	>5 g/kg	LD Dermal	-
Molybdenum disulfide	Rat	>5 g/kg	LD Oral	-
	Rat	>2 g/kg	LD50 Dermal	-
	Rat	>2 g/kg	LD50 Oral	-

Potential chronic health effects

- Chronic effects** : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
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 : No specific data.
Eyes : No specific data.

12 . Ecological information

- Environmental effects** : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

14 . Transport information

International transport regulations

- ADR/ADNR/ IMDG/ IATA** : Not regulated.

15 . Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

Ingredient name

No listed substance

Schedule

15 . Regulatory information

Australia inventory (AICS) : All components are listed or exempted.

16 . Other information

Person who prepared the MSDS : Atrion Regulatory Services, Inc.

History

Date of issue : 09/15/2007

Version : 1

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.