

Material Safety Data Sheet

MOLYKOTE(R) Z POWDER

Infosafe No.: 1ZC0P
ISSUED Date : 27/03/2015
ISSUED by: DOW CORNING AUSTRALIA PTY
LTD

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name

MOLYKOTE(R) Z POWDER

Product Code

000000000001006002

Company Name

DOW CORNING AUSTRALIA PTY LTD (ABN 36 008 444 166)

Address

Locked Bag 2095 (Darling Park, Tower 2 Level 20, 201 Sussex Street Sydney NSW 2000) North Ryde
NSW 1670 Australia

Emergency Tel.

1300-360-732 (within Australia) / 61-1300-360-732 (from outside Australia) (24 Hours)

Telephone/Fax Number

Tel: 1300-360-732 / 1300-369-745

Fax: 1300-650-785

Recommended Use

Lubricants and lubricant additives

2. HAZARD IDENTIFICATION

Hazard Classification

NON-HAZARDOUS SUBSTANCE.

NON-DANGEROUS GOODS.

Not Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).

Not Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Risk Phrase(s)

Not classified as hazardous according to criteria of NOHSC

Route(s) of Entry

Inhalation

Skin contact

Ingestion

Eye contact

Other Information

Other hazards which do not result in classification

Potential dust explosion hazard.

Dust contact with the eyes can lead to mechanical irritation.

Contact with dust can cause mechanical irritation or drying of the skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization

Solid - Powder

Information on Composition

Substance / Mixture : Substance

Chemical nature : Metal sulphide

Ingredients

Name	CAS	Proportion
Molybdenum Sulfide	1317-33-5	>=60-<=100 %

4. FIRST-AID MEASURES

First Aid Measures

General advice :

In the case of accident or if you feel unwell, seek medical advice immediately.

When symptoms persist or in all cases of doubt seek medical advice.

Inhalation

If inhaled, remove to fresh air.

Get medical attention if symptoms occur.

Ingestion

If swallowed, DO NOT induce vomiting.

Get medical attention if symptoms occur.

Rinse mouth thoroughly with water.

Skin

Wash with water and soap.

Get medical attention if symptoms occur.

Eye

If in eyes, rinse well with water.

Get medical attention if irritation develops and persists.

Advice to Doctor

Treat symptomatically and supportively.

Protection for First Aiders

No special precautions are necessary for first aid responders.

Symptoms and Effects

Contact with dust can cause mechanical irritation or drying of the skin.

Dust contact with the eyes can lead to mechanical irritation.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray

Alcohol-resistant foam

Dry chemical

Carbon dioxide (CO₂)

Hazards from Combustion Products

Metal oxides

Sulphur oxides

Special Protective Equipment for fire fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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Use personal protective equipment.

Specific Methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do so.

Evacuate area.

Specific Hazards

Do not use a solid water stream as it may scatter and spread fire.

Exposure to combustion products may be a hazard to health.

Decomposition Temperature

No data available

Unsuitable Extinguishing Media

High volume water jet

6. ACCIDENTAL RELEASE MEASURES

Methods And Materials For Containment And Cleaning Up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Sections 13 (DISPOSAL CONSIDERATIONS) and 15 (REGULATORY INFORMATION) of this SDS provide information regarding certain local or national requirements.

Personal Precautions

Follow safe handling advice and personal protective equipment recommendations.

Environmental Precautions

Discharge into the environment must be avoided.

Prevent further leakage or spillage if safe to do so.

Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

Handling and storage

Technical measures :

Static electricity may accumulate and ignite suspended dust causing an explosion.

Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Local/Total ventilation : Use only with adequate ventilation.

Precautions for Safe Handling

Do not breathe dust.

Handle in accordance with good industrial hygiene and safety practice.

Minimize dust generation and accumulation.

Keep container closed when not in use.

Keep away from heat and sources of ignition.

Take care to prevent spills, waste and minimize release to the environment.

Conditions for Safe Storage

Keep in properly labelled containers. Store in accordance with the particular national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

Components with workplace control parameters

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Components: Molybdenum sulfide
CAS-No.: 1317-33-5
Value type (Form of exposure): TWA
Control parameters / Permissible concentration: 10 mg/m³ (Molybdenum)
Basis: AU OEL
Value type (Form of exposure): TWA (Inhalable fraction)
Control parameters / Permissible concentration: 10 mg/m³ (Molybdenum)
Basis: ACGIH
Value type (Form of exposure): TWA (Respirable fraction)
Control parameters / Permissible concentration: 3 mg/m³ (Molybdenum)
Basis: ACGIH

Engineering Controls

Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.
Apply measures to prevent dust explosions.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Respiratory Protection

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Filter type : Particulates type

Eye Protection

Wear the following personal protective equipment: Safety goggles

Hand Protection

Material : Impervious gloves
Remarks : For prolonged or repeated contact use protective gloves. Wash hands before breaks and at the end of workday.

Body Protection

Skin should be washed after contact.

Hygiene Measures

Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Solid - Powder

Appearance

Fine powder

Odour

none

Decomposition Temperature

No data available

Boiling Point

Not applicable

Solubility in Water

No data available

Specific Gravity

4.8

pH Value

Not applicable

Vapour Pressure

Not applicable

Vapour Density (Air=1)

No data available

Evaporation Rate

Not applicable

Odour Threshold

No data available

Colour

Dark grey

Octanol/Water Partition Coefficient

No data available

Flash Point

Not applicable

Flammability

Not classified as a flammability hazard (solid, gas)

Auto-Ignition Temperature

No data available

Explosion Properties

Not explosive

Molecular Weight

No data available

Oxidising Properties

The substance or mixture is not classified as oxidizing.

Dynamic Viscosity

Not applicable

Explosion Limit - Upper

No data available

Explosion Limit - Lower

No data available

Melting/Freezing Point

No data available

10. STABILITY AND REACTIVITY

Stability and reactivity

Not classified as a reactivity hazard.

Chemical Stability

Stable under normal conditions.

Conditions to Avoid

None known.

Incompatible materials

Do not store with the following product types:
Strong oxidizing agents

Oxidizing agents

Hazardous Decomposition Products

No hazardous decomposition products are known.

Hazardous Reactions

Dust can form an explosive mixture in air.
Can react with strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

Acute toxicity

Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Reproductive Toxicity

Not classified based on available information.

Mutagenicity

Germ cell mutagenicity

Not classified based on available information.

Molybdenum sulfide:

Genotoxicity in vitro :

Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Carcinogenicity

Not classified based on available information.

Molybdenum sulfide:

Species: Rat

Application Route: Ingestion

Exposure time: 232 days

Result: negative

Acute Toxicity - Oral

Molybdenum sulfide:

LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral toxicity

Acute Toxicity - Dermal

Molybdenum sulfide:

LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal toxicity

Acute Toxicity - Inhalation

Molybdenum sulfide:

LC50 (Rat): > 2.82 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Eye Irritation

Not classified based on available information.

Molybdenum sulfide:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Skin Irritation

Not classified based on available information.

Molybdenum sulfide:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

Skin Sensitisation

Not classified based on available information.

Molybdenum sulfide:

Test Type: Maximisation Test (GPMT)

Exposure routes: Skin contact

Species: Guinea pig

Result: negative

12. ECOLOGICAL INFORMATION

Persistence / Degradability

No data available

Mobility

No data available

Bioaccumulative Potential

No data available

Other Adverse Effects

No data available

Acute Toxicity - Fish

Molybdenum sulfide:

LC50 (Pimephales promelas (fathead minnow)): 644.2 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

(Chronic toxicity):

NOEC (Oncorhynchus mykiss (rainbow trout)): > 17 mg/l

Exposure time: 12 Months

Remarks: Based on data from similar materials

Acute Toxicity - Daphnia

Molybdenum sulfide:

EC50 (Daphnia magna (Water flea)): 130.9 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

(Chronic toxicity) :

NOEC (Ceriodaphnia dubia (water flea)): 156.5 mg/l

Exposure time: 21 d

Remarks: Based on data from similar materials

Acute Toxicity - Algae

Molybdenum sulfide:

EC50 (Pseudokirchneriella subcapitata (green algae)): 289.2 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Acute Toxicity - Bacteria

Molybdenum sulfide:

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NOEC: > 950 mg/l

Exposure time: 17 d

Remarks: Based on data from similar materials

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Waste from residues : Dispose of in accordance with local regulations.

Container Disposal

Contaminated packaging :

Dispose of as unused product.

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

14. TRANSPORT INFORMATION

U.N. Number

None Allocated

Proper Shipping Name

None Allocated

DG Class

None Allocated

Packing Group

None Allocated

Other Information

International Regulation

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

ADG

Not regulated as a dangerous good

15. REGULATORY INFORMATION

Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Prohibition/Licensing Requirements : There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

The components of this product are reported in the following inventories:

REACH : All ingredients (pre-)registered or exempt.

IECSC : All ingredients listed or exempt.

ENCs/ISHL : All components are listed on ENCS/ISHL or exempted from inventory listing.

KECI : All ingredients listed, exempt or notified.

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Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

Australia (AICS)

All ingredients listed or exempt.

Philippines (PICCS)

All ingredients listed or exempt.

USA (TSCA)

All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

16. OTHER INFORMATION

User Codes

User Title Label	User Codes
Wis Numbers	05393393

Other Information

Version 1.1

MSDS Number: 785275-00002

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average

AU OEL / TWA : Exposure standard - time weighted average

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END OF MSDS

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