

SAFETY DATA SHEET

MOLYBOND GA50 GREASE

Infosafe No.: Z1B2Z
ISSUED Date : 10/03/2023
ISSUED by: ITW POLYMERS & FLUIDS

Section 1 - Identification

Product Identifier

MOLYBOND GA50 GREASE

Company Name

ITW POLYMERS & FLUIDS

Address

100 Hassall Street Wetherill Park
NSW 2164 AUSTRALIA

Telephone/Fax Number

Tel: +61 2 9757 8800

Emergency Phone Number

+61 1800 951 288; +61 3 9573 3188

Recommended use of the chemical and restrictions on use

Relevant identified uses:

Lubricating grease.

Other Names

Name
PETROLEUM BASED LUBRICANT
GREASE

Additional Information

Website: www.itwpf.com.au

Chemical Name: Not Applicable

Other means of identification: Not Available

Once connected and if the message is not in your preferred language then please dial 01

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Eye damage/irritation: Category 2A

Skin corrosion/irritation: Category 2

Specific target organ toxicity (repeated exposure): Category 2

Specific target organ toxicity (single exposure): Category 3 (Respiratory tract irritation)

Hazardous to the Aquatic Environment - Acute Hazard: Category 1

Signal Word (s)

WARNING

Hazard Statement (s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

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Pictogram (s)

Exclamation mark, Health hazard, Environment



Precautionary Statement – Prevention

P260 Do not breathe mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement – Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor/physician/first aider/ if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

Precautionary Statement – Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Precautionary Statement – Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Precautionary Statement – General

Not Applicable

Other Information

Classification of the substance or mixture:

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Legend: 1. Classified by ; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Molybdenum Disulfide	1317-33-5	30-50 %weight
Lithium thickener		}
mineral oil	63748-98-1	}30-60 %[weight]
NOTE: Manufacturer has supplied full ingredient		-
Information to allow assessment.		-

Other Information

Substances:

See section below for composition of Mixtures

Mixtures:

NOTE: Manufacturer has supplied full ingredient information to allow assessment.

Section 4 - First Aid Measures

Inhalation

If fumes or combustion products are inhaled remove from contaminated area.

Lay patient down. Keep warm and rested.

Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

Transport to hospital, or doctor.

Ingestion

For advice, contact a Poisons Information Centre or a doctor at once.

Urgent hospital treatment is likely to be needed.

If swallowed do NOT induce vomiting.

If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Observe the patient carefully.

Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Transport to hospital or doctor without delay.

Skin

If skin or hair contact occurs:

Flush skin and hair with running water (and soap if available).

Seek medical attention in event of irritation.

Eye

If this product comes in contact with the eyes:

Wash out immediately with fresh running water.

Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

Seek medical attention without delay; if pain persists or recurs seek medical attention.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.

In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.

High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

NOTE: Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Foam.

Dry chemical powder.

BCF (where regulations permit).

Carbon dioxide.

Specific hazards arising from the chemical

Fire Incompatibility:

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Fire/Explosion Hazard:

Combustible.

Slight fire hazard when exposed to heat or flame.

Heating may cause expansion or decomposition leading to violent rupture of containers.

On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include:

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Carbon dioxide (CO₂)
Other pyrolysis products typical of burning organic material.
May emit poisonous fumes.

Hazchem Code

Not Applicable

Decomposition Temperature

Not Available

Precautions in connection with Fire

Alert Fire Brigade and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water courses.
Use water delivered as a fine spray to control fire and cool adjacent area.

Section 6 - Accidental Release Measures

Clean-up Methods - Small Spillages

Slippery when spilt.
Clean up all spills immediately.
Avoid contact with skin and eyes.
Wear impervious gloves and safety goggles.
Trowel up/scrape up.
Clean up all spills immediately.
Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.
Control personal contact with the substance, by using protective equipment.
Contain and absorb spill with sand, earth, inert material or vermiculite.

Clean-up Methods - Large Spillages

Slippery when spilt.
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water course.

Other Information

Personal Protective Equipment advice is contained in Section 8(Exposure Controls/Personal Protection) of the SDS.

Section 7 - Handling and Storage

Precautions for Safe Handling

Safe handling:
Avoid all personal contact, including inhalation.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Prevent concentration in hollows and sumps.

Other information:

Store in original containers.
Keep containers securely sealed.
Store in a cool, dry, well-ventilated area.
Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container:
Metal can or drum
Packaging as recommended by manufacturer.
Check all containers are clearly labelled and free from leaks.

Storage incompatibility:

Avoid reaction with oxidising agents

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

Control parameters:

Occupational Exposure Limits (OEL):

INGREDIENT DATA:

Source: Australia Exposure Standards

Ingredient: mineral oil

Material name: Oil mist, refined mineral

TWA: 5 mg/m³

STEL: Not Available

Peak: Not Available

Notes: Not Available

Source: Australia Exposure Standards

Ingredient: molybdenum disulfide

Material name: Molybdenum, insoluble compounds (as Mo)

TWA: 10 mg/m³

STEL: Not Available

Peak: Not Available

Notes: Not Available

Emergency Limits:

Ingredient: mineral oil

Material name: Not Available

TEEL-1: 140 mg/m³

TEEL-2: 1,500 mg/m³

TEEL-3: 8,900 mg/m³

Ingredient: molybdenum disulfide

Material name: Not Available

TEEL-1: 50 mg/m³

TEEL-2: 260 mg/m³

TEEL-3: 1,600 mg/m³

Ingredient: mineral oil

Original IDLH: 2,500 mg/m³

Revised IDLH: Not Available

Ingredient: molybdenum disulfide

Original IDLH: 5,000 mg/m³

Revised IDLH: Not Available

Engineering Controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Respiratory Protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Eye and Face Protection

Safety glasses with side shields

Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of

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lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

Hand Protection

Wear chemical protective gloves, e.g. PVC.

Thermal Hazards

Not Available

Footwear

Wear safety footwear or safety gumboots, e.g. Rubber

Body Protection

Overalls.

P.V.C apron.

Barrier cream.

Skin cleansing cream.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Grease	Appearance	Black grease; does not mix with water.
Odour	Not Available	Melting/Freezing Point	Not Available
Boiling Point	>200°C	Decomposition Temperature	Not Available
Solubility in Water	Immiscible	pH	Not Applicable (as supplied) Not Applicable (as a solution (1%))
Vapour Pressure	Negligible.	Relative Vapour Density (Air=1)	>1
Evaporation Rate	Very low.	Physical State	Non Slump Paste
Odour Threshold	Not Available	Viscosity	Not Available
Volatile Component	Negligible.	Partition Coefficient: n-octanol/water (log value)	Not Available
Surface Tension	Not Available	Flash Point	>200°C
Flammability	Not Applicable	Auto-Ignition Temperature	Not Available
Explosion Limit - Upper	Not Applicable	Explosion Limit - Lower	Not Applicable
Explosion Properties	Not Available	Molecular Weight	Not Applicable
Oxidising Properties	Not Available	Initial boiling point and boiling range	>200°C
Relative Density	1.3 approx. (Water = 1)		

Other Information

Taste: Not Available

Gas group: Not Available

VOC g/L: Not Available

Section 10 - Stability and Reactivity

Reactivity

See section 7(Handling and Storage)

Chemical Stability

Product is considered stable and hazardous polymerisation will not occur.

Possibility of hazardous reactions

See section 7 (Handling and Storage)

Conditions to Avoid

See section 7 (Handling and Storage)

Incompatible Materials

See section 7 (Handling and Storage)

Hazardous Decomposition Products

See section 5 (Fire Fighting Measures)

Section 11 - Toxicological Information

Toxicology Information

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

Molybond GA50 Grease:

The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:

- The adverse effects of these materials are associated with undesirable components, and
- The levels of the undesirable components are inversely related to the degree of processing;
- Distillate base oils receiving the same degree or extent of processing will have similar toxicities;
- The potential toxicity of residual base oils is independent of the degree of processing the oil receives.
- The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.

Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size.

Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.

Molybond GA50 Grease:

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to an non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of a highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. No significant acute toxicological data identified in literature search.

Acute Toxicity: Data available but does not fill the criteria for classification

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual.

If ingested, sulfide salts can form hydrogen sulfide, causing headache, cyanosis, low blood pressure, loss of consciousness, tremors and convulsions.

Inhalation

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

Effects on lungs are significantly enhanced in the presence of respirable particles.

Skin

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

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Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Skin Corrosion/Irritation

Data available to make classification

Eye

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

Serious Eye Damage/Irritation

Data available to make classification

Respiratory Sensitisation

Data available but does not fill the criteria for classification

Skin Sensitisation

Data available but does not fill the criteria for classification

Carcinogenicity

Data available but does not fill the criteria for classification

Reproductive Toxicity

Data available but does not fill the criteria for classification

STOT - Single Exposure

Data available to make classification

STOT - Repeated Exposure

Data available to make classification

Aspiration Hazard

Data available but does not fill the criteria for classification

Mutagenicity

Data available but does not fill the criteria for classification

Chronic Effects

Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.

Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet.

High levels of molybdenum can cause joint problems in the hands and feet with pain and lameness. Molybdenum compounds can also cause liver changes with elevated levels of enzymes and cause over-activity of the thyroid gland.

Section 12 - Ecological Information

Ecotoxicity

Not Available

Ingredient: Molybond GA50 Grease

Endpoint: Not Available

Test Duration (hr): Not Available

Effect: Not Available

Value: Not Available

Species: Not Available

BCF: Not Available

DO NOT discharge into sewer or waterways.

Persistence and degradability

Persistence: Water/Soil: No Data available for all ingredients

Persistence: Air: No Data available for all ingredients

Mobility

Mobility in soil:

No Data available for all ingredients

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Bioaccumulative Potential

No Data available for all ingredients

Section 13 - Disposal Considerations

Waste Disposal

Product / Packaging disposal:

Containers may still present a chemical hazard/ danger when empty.

Return to supplier for reuse/ recycling if possible.

Otherwise:

If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Section 14 - Transport Information

UN Number

None Allocated

Proper Shipping Name

None Allocated

Transport Hazard Class

None Allocated

Hazchem Code

Not Applicable

IATA UN Number

NCAD

IATA Proper Shipping Name

Not dangerous for conveyance under IATA code

IMDG UN Number

NCAD

IMDG Proper Shipping Name

Not dangerous for conveyance under IMO/IMDG code

Additional Information

Labels Required:

Marine Pollutant

HAZCHEM: Not Applicable

Transport in bulk according to Annex II of MARPOL and the IBC code:

Source: Not Available

Ingredient: Molybond GA50 Grease

Pollution Category: Not Available

Section 15 - Regulatory Information

Regulatory Information

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

mineral oil(63748-98-1) is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

molybdenum disulfide(1317-33-5) is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

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International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

National Inventory / Status

Australia - AIIC
Canada - DSL No (mineral oil)
Canada - NDSL No (mineral oil; molybdenum disulfide)
China - IECSC No (mineral oil)
Europe - EINEC / ELINCS /NLP No (mineral oil)
Japan - ENCS Yes
Korea - KECI No (mineral oil)
New Zealand - NZIoC No (mineral oil)
Philippines - PICCS No (mineral oil)
USA - TSCA No (mineral oil)

Legend:

Y = All ingredients are on the inventory

Poisons Schedule

N/A

Section 16 - Any Other Relevant Information

Empirical Formula & Structural Formula

Not Applicable

User Codes

User Title Label	User Codes
Transcription Sign Off	18842 MC 20/02/2016
Wis Numbers	00806208
Wis Numbers	01005438

Other Information

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

This SDS has been transcribed into Infosafe GHS format from an original, issued by the manufacturer on the date shown. Any disclaimer by the manufacturer may not be included in the transcription.

END OF SDS

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