



Hi-Tec Oil Traders Pty Ltd ABN 28 053 837 362

5 Tarlington Place Smithfield NSW 2164

Correspondence: P.O Box 322 Castle Hill NSW 1765

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www.hi-tecoils.com.au

PRODUCT DATA SHEET

Molyplex 5

PRODUCT DESCRIPTION

Molyplex 5 is a smooth, grey coloured grease with exceptional load carrying capabilities. It is a lithium complex soap thickened heavy duty grease employing a 220 cSt high purity mineral base oil combined with performance enhancing additives and 5% molybdenum disulphide to impart supreme resistance to the effects of pressure and temperature on metal-to-metal contact surfaces.

APPLICATONS

Molyplex 5 can be used extensively throughout industrial, mining, off-highway plant and high intensity production sectors where there is an acute demand to lubricate plain and anti-friction bearings in high load and pressure applications. Due to its operating temperature range and heavy duty rating, it is a highly versatile multi-application grease. It offers superb corrosion protection to metal components and exhibits excellent oxidation stability characteristics. When stored under favourable conditions, it has a shelf life exceeding three years.

TYPICAL PROPERTIES

Property	Method	Typical Results
NLGI Grade	-	2
Colour	-	Grey / Black
Worked Penetration	ASTM D217	265 - 295
Thickener	-	Lithium Complex
Dropping Point (°C)	ASTM D2265	>260
Solid Content (Molybdenum Disulphide)	-	5%
Copper Corrosion, 24 hours @ 100°C	ASTM D4048	1a
Corrosion	ASTM D1743	Pass
Oxidation Stability	ASTM D8206	
Time to 10% loss @ 160°C (min)		220
Four Ball Weld Load (kg/f)	IP 239	560
Four Ball Weld Scar, 40kg, 1 hour (mm)	IP 239	0.45
Base Oil Viscosity @ 40°C (cSt)	-	220
Operating Temperature Range (°C)	-	-20 to 160

Available In: 180kg

"Hi-Tec Oil Traders Pty Ltd (Hi-Tec Oils) has endeavoured to ensure that all information, representations and specifications contained in this product data sheet are accurate at the time of publication. This general information should be used in conjunction with appropriate inquiries by users of the product including consultation with the vehicle or equipment manufacturers published information.

It is the responsibility of users of the product to use the product safely. Users should consult the safety data sheets for each product at www.hi-tecoils.com.au. Hi-Tec Oils takes no responsibility for injury or damage if the product is used in an inappropriate or unsafe manner.

Our product warranty and product quality statement can be viewed at www.hi-tecoils.com.au"

Item code: HI7-1038

Effective: January 2020

MR021041/1



AUSTRALIAN FAMILY OWNED SINCE 1989





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Product name: Molyplex 5

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY: Hi-Tec Oil Traders Pty Ltd. (ABN 28 053 837 362)

ADDRESS: PO Box 322 Castle Hill NSW 1765
5 Tarlington Place, Smithfield NSW 2164

TELEPHONE NUMBER: 1300 796 009

FAX NUMBER: (02) 9604 1611

EMERGENCY TELEPHONE NUMBER: 1300 796 009

PRODUCT NAME: Molyplex 5

OTHER NAMES: None

MANUFACTURER'S PRODUCT CODE: HI7-1038

USE: Lithium complex grease with Molydenum Disulphide.

ADDITIONAL INFORMATION: Refer to Product Information Sheet for additional information.

OTHER INFORMATION: Visit our website: www.hi-tecoils.com.au
Email: hitecoils@hi-tecoils.com.au

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: NON-HAZARDOUS
NON-DANGEROUS GOODS
Hazard classification according to GHS Classification.
Dangerous goods classification according to Australian Dangerous Goods Code.

SIGNAL WORD (S): None

IRRITANCY OF PRODUCT: Not classified as an irritant.

SENSITISATION OF PRODUCT: Not known to be a sensitiser.

TERATOGENICITY: No teratogenic effects known.

OTHER INFORMATION: Used greases may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and environment on disposal. All used oils should be handled with caution and skin contact avoided as far as possible.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTICS: Grease

INGREDIENTS:-

CHEMICAL ENTITY	CAS NO	PROPORTION	CLASSIFICATION
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	50-100%	-
Molybdenum Disulphide	1317-33-5	5-10%	-
Calcium Carbonate	1317-65-3	2.5-5.0%	-
Dilithium Silicate	19370-86-6	1-2.5%	Acut Tox.4 – H302
Ingredients determined to be non-hazardous	-	To 100%	-

4. FIRST AID MEASURES

GENERAL INFORMATION: You should call the Poisons Information Centre on 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) if you feel that you may have been poisoned, burned or irritated by this product. Have this SDS with you when you call.

INHALATION: No specific recommendations. If throat irritation or coughing persists, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if any discomfort continues.

INGESTION: No specific recommendations. If throat irritation or coughing persists, proceed as follows. Rinse mouth. Get medical attention if any discomfort continues.

SKIN CONTACT: No specific recommendations. Rinse with water. Get medical attention if any discomfort continues.

EYE CONTACT: Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.

FIRST AIDERS: Use protective equipment appropriate for surrounding materials.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

GENERAL INFORMATION: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

INHALATION: No specific symptoms known.

INGESTION: No specific symptoms known. May cause discomfort if swallowed.

SKIN CONTACT: Prolonged contact may cause dryness of the skin.

EYE CONTACT: No specific symptoms known. May be slightly irritating to eyes.



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4. FIRST AID MEASURES (CONT.)

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

NOTES TO PHYSICIAN: Treat symptomatically.

SPECIAL TREATMENTS: No special treatment required.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

SPECIFIC HAZARDS: None known.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

ADVICE FOR FIREFIGHTERS

PROTECTIVE ACTIONS: Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

SPECIAL PROTECTIVE EQUIPMENT: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: No specific recommendations. For personal protection, see Section 8.

ENVIRONMENTAL PRECAUTIONS: Avoid discharge into drains or watercourses or onto the ground.

METHODS FOR CONTAINMENT & CLEANING UP: Reuse or recycle products wherever possible. Collect spillage with a shovel and broom or similar and reuse if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

REFERENCE TO OTHER SECTIONS: For personal protection, see Section 8. For waste disposal, see Section 13.



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7. HANDLING AND STORAGE

ADVICE ON GENERAL OCCUPATIONAL HYGIENE:

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed when not in use.

HYGIENE MEASURES:

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

STORAGE PRECAUTIONS:

Store away from incompatible materials (see Section 10). No specific recommendations.

STORAGE CLASS:

Unspecified storage.

SPECIFIC END USES:

The identified uses for this product are detailed in Section 1.2

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

Distillates (petroleum), hydrotreated heavy paraffinic:

Short-term exposure limit (15-minute): WEL 10 mg/m³ mist

Molybdenum Disulphide:

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³
Short-term exposure limit (15-minute): WEL 20 mg/m³ as Mo

Calcium Carbonate:

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust.
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust.

WEL = Workplace Exposure Limit
Sk = Can be absorbed through the skin.

EXPOSURE CONTROLS

ENGINEERING CONTROLS:

No specific ventilation requirements.

EYE/FACE PROTECTION:

No specific eye protection required during normal use. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

HAND PROTECTION:

No specific hand protection recommended. Large Spillages: Wear protective gloves.

SKIN/BODY PROTECTION:

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENE MEASURES:

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

RESPIRATORY PROTECTION:

No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.





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8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT.)

ENVIRONMENTAL EXPOSURE CONTROLS:

Not regarded as dangerous for the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Grease
COLOUR:	Grey to black
ODOUR:	Almost odourless
ODOUR THRESHOLD:	No information available
pH:	Not applicable
MELTING POINT:	>260°C
INITIAL BOILING POINT AND RANGE:	No information available
FLASH POINT:	>200°C Pensky-Martens closed cup. Information given is applicable to the major ingredient
EVAPORATION RATE:	No information available
EVAPORATION FACTOR:	No information available
FLAMMABILITY (SOLID, GAS):	No information available
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No information available
OTHER FLAMMABILITY:	No information available
VAPOUR PRESSURE:	No information available
VAPOUR DENSITY:	No information available
RELATIVE DENSITY:	No information available
BULK DENSITY:	No information available
SOLUBILITY (IES):	Insoluble in water.
PARTITION COEFFICIENT:	No information available
AUTO-IGNITION TEMPERATURE:	No information available



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9. PHYSICAL AND CHEMICAL PROPERTIES (CONT.)

DECOMPOSITION TEMPERATURE:	No information available
VISCOSITY:	220 cSt @ 40°C. Information given is applicable to major ingredient
EXPLOSIVE PROPERTIES:	Not considered to be explosive
EXPLOSIVE UNDER THE INFLUENCE OF A FLAME:	Not considered to be explosive
AUTO-IGNITION TEMPERATURE:	No information available
OXIDISING PROPERTIES:	Not applicable

10. STABILITY AND REACTIVITY

REACTIVITY:	See other subsections of this section for further details.
CHEMICAL STABILITY:	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
HAZARDOUS REACTIONS:	No potentially hazardous reactions known.
CONDITIONS TO AVOID:	There are no known conditions that are likely to result in a hazardous situation.
INCOMPATIBLE MATERIALS:	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
HAZARDOUS DECOMPOSITION PRODUCTS:	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS:	Not regarded as a health hazard under current legislation.
<u>ACUTE TOXICITY - ORAL</u> Notes (oral LD ₅₀):	Based on available data the classification criteria are not met.
ATE oral (mg/kg):	20,833.33
<u>ACUTE TOXICITY - DERMAL</u> Notes (dermal LD ₅₀):	Based on available data the classification criteria are not met.
<u>ACUTE TOXICITY - INHALATION</u> Notes (inhalation LC ₅₀):	Based on available data the classification criteria are not met.



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11. TOXICOLOGICAL INFORMATION (CONT)

SKIN CORROSION/IRRITATION

Animal data:

Based on available data the classification criteria are not met.

SERIOUS EYE DAMAGE/IRRITATION

Serious eye damage/irritation:

Based on available data the classification criteria are not met.

RESPIRATORY SENSITISATION

Respiratory sensitisation:

Based on available data the classification criteria are not met.

SKIN SENSITISATION

Skin sensitisation:

Based on available data the classification criteria are not met.

GERM CELL MUTAGENICITY

Genotoxicity - in vitro:

Based on available data the classification criteria are not met.

CARCINOGENICITY

Carcinogenicity:

Based on available data the classification criteria are not met.

IARC carcinogenicity:

Non of the ingredients are listed or exempted. .

REPRODUCTIVE TOXICITY

Reproductive toxicity – fertility:

Based on available data the classification criteria are not met.

Reproductive toxicity – development:

Based on available data the classification criteria are not met.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

STOT - single exposure

Not classified as a specific target organ toxicant after a single exposure.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

STOT - repeated exposure

Not classified as a specific target organ toxicant after repeated exposure.

ASPIRATION HAZARD

Aspiration hazard:

Not relevant. Solid.

GENERAL INFORMATION:

No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

INHALATION:

No specific symptoms known.

INGESTION:

No specific symptoms known. May cause discomfort if swallowed.

SKIN CONTACT:

Prolonged contact may cause dryness of the skin.

EYE CONTACT:

No specific symptoms known. May be slightly irritating to eyes.



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11. TOXICOLOGICAL INFORMATION (CONT.)

ROUTE OF ENTRY: Ingestion Inhalation Skin and/or eye contact

TARGET ORGANS: No specific target organs known.

TOXICOLOGICAL INFORMATION ON INGREDIENTS

DILITHIUM SEBACATE

ACUTE TOXICITY - ORAL

Notes (oral LD₅₀): Acute Tox. 4 – H302 Harmful if swallowed.

ATE oral (mg/kg): 500.00

ACUTE TOXICITY - DERMAL

Notes (dermal LD₅₀): Based on available data the classification criteria are not met.

ACUTE TOXICITY - INHALATION

Notes (inhalation LC₅₀): Based on available data the classification criteria are not met.

SKIN CORROSION/IRRITATION

Animal data: Based on available data the classification criteria are not met.

SERIOUS EYE DAMAGE/IRRITATION

Serious eye damage/irritation: Based on available data the classification criteria are not met.

RESPIRATORY SENSITISATION

Respiratory sensitisation: Based on available data the classification criteria are not met.

SKIN SENSITISATION

Skin sensitisation: Based on available data the classification criteria are not met.

GERM CELL MUTAGENICITY

Genotoxicity - in vitro: Based on available data the classification criteria are not met.

CARCINOGENICITY

Carcinogenicity: Based on available data the classification criteria are not met.

IARC carcinogenicity: Non of the ingredients are listed or exempted.

REPRODUCTIVE TOXICITY

Reproductive toxicity – fertility: Based on available data the classification criteria are not met.

Reproductive toxicity – development: Based on available data the classification criteria are not met.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.



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11. TOXICOLOGICAL INFORMATION (CONT.)

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

ASPIRATION HAZARD

Aspiration hazard: Not relevant. Solid.

GENERAL INFORMATION:

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

INHALATION:

No specific symptoms known.

INGESTION:

May cause discomfort if swallowed. Stomach pain. Nausea, vomiting

SKIN CONTACT:

Prolonged contact may cause dryness of the skin.

EYE CONTACT:

No specific symptoms known.

ROUTE OF ENTRY:

Ingestion Inhalation Skin and/or eye contact

TARGET ORGANS:

No specific target organs known.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

TOXICITY: Based on available data the classification criteria are not met.

PERSISTENCE AND DEGRADABILITY: The degradability of the product is not known.

BIOACCUMULATIVE POTENTIAL: No data available on bioaccumulation.

PARTITION COEFFICIENT: No information available

MOBILITY: No data available.

RESULTS OF PBT & vPvB ASSESSMENT: No information available.

OTHER ADVERS EFFECTS: None known.

ECOLOGICAL INFORMATION ON INGREDIENTS

DILITHIUM SEBACATE

TOXICITY: Based on available data the classification criteria are not met.



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12. ECOLOGICAL INFORMATION (CONT.)

ACUTE AQUATIC TOXICITY:

Acute Toxicity – Fish

LC₅₀, 96 hours: >100mg/l, Cyprinus Carpio (Common Carp)

Acute Toxicity – Aquatic Invertebrates

EC₅₀, 48 hours: >100mg/l, Daphnia magna

Acute Toxicity – Aquatic Plants

EC₅₀, 75 hours: >100mg/l, Pseudokirchneriella subcapitata

NOEC, 72 hours: 10mg/l, Pseudokirchneriella subcapitata

PERSISTENCE AND DEGRADABILITY:

The product is readily biodegradable

BIOACCUMULATIVE POTENTIAL:

No data available on bioaccumulation.

MOBILITY:

No data available.

RESULTS OF PBT & vPvB ASSESSMENT:

No information available.

OTHER ADVERS EFFECTS:

None known.

13. DISPOSAL CONSIDERATIONS

GENERAL INFORMATION:

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way.

DISPOSAL METHODS:

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

14. TRANSPORT INFORMATION

ROAD & RAIL TRANSPORT:

ADG REQUIREMENT

Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

MARITIME TRANSPORT:

IMO/IMDG REQUIREMENT

Not classified as a Dangerous Good according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT:

ICAO/IATA REQUIREMENT

Not classified as a Dangerous Good according to the criteria of the International Maritime Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



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15. REGULATORY INFORMATION

POISON SCHEDULE:	Not scheduled.
PACKING & LABELLING:	No special packaging or labelling requirements.
AUSTRALIAN INVENTORY STATUS:	All components are listed or exempted.

16. OTHER INFORMATION

CONTACT PERSON/POINT: General Manager 1300 796 009

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

LITERATURE REFERENCES:

- * Safework Australia: 2016 Code of Practice for the Preparation of Safety Data Sheets for Hazardous Substances.* NOHSC: 2011 National Code of Practice for the preparation of Material Safety Data Sheets.
- * NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances.
- * NOHSC: 10005 List of Designated Hazardous Substances.
- * NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice.
- * NOHSC: 2007 Control of Workplace Hazardous Substances, National Code of Practice.
- * NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards.
- * NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note.
- * NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard.
- * NOHSC: 2017 Storage and Handling of Workplace Dangerous Goods, National Code of Practice.
- * SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons
- * ADG: Australian Dangerous Goods Code
- * MSDS of component materials.



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16. OTHER INFORMATION (CONT.)

LAST CHANGE:

Supersedes document issued: New Document

Reason/s for revision: Compliance with GHS requirements.

MR021002/1

END OF SDS



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