

Material Safety Data Sheet

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Infosafe No. 5CA0W Issue Date : February 2004 ISSUED by CASTROL

Product Name : **MOLUB ALLOY 369 DRY FILM LUBRICANT**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name MOLUB ALLOY 369 DRY FILM LUBRICANT
Product Use Industrial applications.
Company Name Castrol Australia Pty. Limited (ABN 87 008 459 407)
Address 132 McCredie Road, Guildford,
NSW, 2161
Emergency Tel. 1800 638 556
Telephone Tel: (02) 9795 4800 Fax: (02) 9795 4910
Number/Fax
Other Information Castrol Technical Help Line 1300 557 998 (Local call)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition Contains Isopropyl alcohol and proprietary additives.

Ingredients	Name	CAS	Proportion
	Isopropyl Alcohol	67-63-0	60-100 %
	Ingredients Determined	Not required	Balance
	Not To Be Hazardous		

3. HAZARDS IDENTIFICATION

Classified as hazardous according to NOHSC criteria.
Classified as a dangerous good according to the ADG Code.

Risk phrases:
R10 Flammable.
R36 Irritating to eyes.

Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure, constitutes a major medical emergency. See 'Advice to Doctor' under First-Aid Measures, Section 4 of this Safety Data Sheet.

Safety phrases:
S2 Keep out of reach of children.
S23 Do not breathe gas/fumes/vapour/spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S38 If insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell seek medical advice immediately
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

4. FIRST AID MEASURES

Inhalation Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a facemask if breathing is difficult. If irritation develops and persists, seek medical attention.

Ingestion DO NOT induce vomiting. Immediately wash out mouth with water. Seek IMMEDIATE medical attention.

Skin Remove contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap. Ensure contaminated clothing is washed before re-use or discard. If irritation develops, seek medical attention.
Medical advice must be obtained urgently if product under high pressure has been injected through the skin.

Eye If contact with the eye(s) occur, wash with copious amounts of water, holding eyelids(s) open. Take care not to rinse contaminated water into the non-affected eye. If irritation develops and persists, seek medical attention.

First Aid Facilities Eye wash and normal washroom facilities.

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Advice to Doctor Treatment should in general be symptomatic and directed to relieving any effects.
Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis.
Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

5. FIRE FIGHTING MEASURES

Extinguishing Media Small fire: Use dry chemical powder.
Large fire: Use alcohol foam, water spray or fog. Cool fire exposed vessels/containers with water to prevent pressure build up, autoignition or explosion.

Specific Hazards Flammable. Keep away from heat, sparks or naked flames. Electrically link and ground metal containers for transfer of the product to prevent accumulation of static electricity. Ensure adequate ventilation to prevent an explosive vapour-air mixture. Vapours will travel considerable distances to sources of ignition. Runoff to sewer may create fire or explosion hazard.

Hazardous Combustion Products Oxides of carbon, nitrogen and sulphide.

Precautions in connection with Fire Self-Contained Breathing Apparatus (S.C.B.A) and full protective clothing should be worn to minimise exposure.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. Wear full protective equipment and clothing to minimise exposure. If possible contain the spill. Place inert, non-combustible, absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Handling Repeated or prolonged contact with this material should be avoided in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking or going to the toilet. Build-up of mists in the working atmosphere must be prevented.
Misuse of empty containers can be hazardous. Do not cut, weld, heat or drill containers. Residue may ignite with explosive violence if heated sufficiently. Do not pressurise or expose to open flame or heat. Keep container closed and bung in place.

Storage The product should be stored in a cool, dry, well ventilated area, away from sources of ignition and oxidising agents. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Store in segregated and approved area. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures.
Do NOT pressurise, cut, heat or weld empty containers as they may contain hazardous residues. For information on the design of the store-room reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all Local, State and Federal regulations.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Isopropyl Alcohol	1230	500	983	400	

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Other Exposure Information	No value assigned for this specific material by the Australian National Occupational Health and Safety Commission (NOHSC) for this specific product. However recommended exposure levels for constituents are listed above. As with all chemicals, exposure should be kept to the lowest possible levels.
Respiratory Protection	Avoid breathing of vapours or mists. Where ventilation is inadequate and vapours or mists are generated the use of an approved respirator with organic vapour/particulate filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended; however final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715- Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716- Respiratory Protective Devices.
Eye Protection	Safety glasses or face shield as appropriate. Final choice of appropriate eye/face protection will vary according to individual circumstances including methods of handling or engineering controls as determined by appropriate risk assessments. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337- Eye Protectors for Industrial Applications.
Hand Protection	Impervious gloves recommended. Final choice of appropriate glove type will vary according to individual circumstances, including methods of handling or engineering controls as determined by appropriate risk assessments. Refer to AS/NZS 2161 Occupational protective gloves- Selection, use and maintenance.
Body Protection	Wear appropriate protective clothing including chemical resistant apron where clothing is likely to be contaminated.
Eng. Controls	Where vapours or mists are generated, the use of respiratory protection or a flammable proof exhaust ventilation system is recommended.
Other Information	No biological limit allocated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Dark grey liquid.
Odour	Alcohol like odour.
Boiling Point	Not available.
Solubility in Water	Easily soluble in cold water.
Vapour Pressure	Not available.
Viscosity	Not available.
Flash Point	11°C (PMCC)
Ignition Temperature	Not available.
Flammable Limits	Not available.
LEL	
Flammable Limits	Not available.
UEL	

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and handling.
Hazardous Polymerization	Will not occur.
Materials to Avoid	Oxidising agents and acids.
Hazardous Decomposition Products	Oxides of carbon, nitrogen and sulphide. Some metallic oxides.
Hazardous Reaction	May react with oxidising agents.
Conditions to Avoid	Heat, direct sunlight, open flames or other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No toxicity data is available for this product.
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Inhalation	Excessive vapours generated may cause irritation to the mucous membrane and upper airways. Inhalation of excessive vapours can result in similar effects to those of ingestion ie. headaches, dizziness, drowsiness, intoxication, nausea and other central nervous system effects.
Ingestion	May cause irritation of the gastrointestinal system. Symptoms may include nausea, weakness, vomiting and diarrhoea. Ingestion of excessive amounts may also lead to central nervous system effects, including headaches, dizziness, drowsiness, fatigue, loss of coordination and possibly unconsciousness.
Skin	May cause irritation in contact with the skin, which may result in redness and itchiness, possibly leading to dermatitis.
Eye	Eye contact or excessive vapour may cause irritation, including redness, lachrymation, stinging and swelling.
Chronic Effects	Prolonged or repeated contact with this material may result in skin irritation possibly leading to dermatitis.

12. ECOLOGICAL INFORMATION

Environ. Protection	Prevent this material from entering the environment.
Mobility	No data available for this specific product.
Persistence / Degradability	No data available for this specific product.
Bioaccumulation	No data available for this specific product.
Ecotoxicity	No data available for this specific product.

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

14. TRANSPORT INFORMATION

This material is a Class 3 - Flammable Liquid according to The Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 3 - Flammable Liquids are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk
- Class 2.3, Toxic Gases
- Class 4.2 Spontaneously Combustible Substances
- Class 5.1 Oxidising Agents and Class 5.2, Organic Peroxides
- Class 6 Toxic Substances (where the flammable liquid is nitromethane)
- Class 7 Radioactive Substances.

U.N. Number	1993
Proper Shipping Name	FLAMMABLE LIQUIDS, N.O.S. - (Contains Isopropyl alcohol)
DG Class	3
Hazchem Code	3[Y]E
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Risk Phrase	R10 Flammable. R36 Irritating to eyes. R67 Vapours may cause drowsiness and dizziness
Safety Phrase	S2 Keep out of reach of children. S23 Do not breathe gas/fumes/vapour/spray S24/25 Avoid contact with skin and eyes. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S38 If insufficient ventilation, wear suitable respiratory equipment. S45 In case of accident or if you feel unwell seek medical advice immediately S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

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Poisons Schedule Not Scheduled

Hazard Category Irritant

16. OTHER INFORMATION

Contact Person/Point For information concerning details on this Safety Data Sheet contact your local Technical Services Manager on the following numbers:-

Sydney: (02) 9795 4800
Melbourne: (03) 9268 4200
Brisbane: (07) 3850 9300
Adelaide: (08) 8347 6200
Perth: (08) 9268 9288

Castrol Technical Help Line 1300 557 998 (Local call)

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24 HOUR EMERGENCY CONTACT

1 800 638 556

24 HOUR EMERGENCY CONTACT (New Zealand Only)

0800 154 666

SDS History

MSDS Review: February 2004

MSDS supersedes: February 1999.

...End Of MSDS...