SAFETY DATA SHEET -

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1 . Identification of the substance/preparation and company/undertaking

Product name **Molub-Alloy 936 SF Heavy A**

SDS no. 461430

Historic SDS no. 76517-BT

Use of the substance/preparation - Lubricant
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Supplier - BP Singapore Pte Ltd
#02-01 Keppel Bay Tower
1 Harbour Front Avenue
Singapore, 098632
Tel no' +65 6371 8888

Emergency telephone number - Carechem: +65 6322 2513

OTHER PRODUCT INFORMATION +656 371-8259

Code - 461430-US69

2 . Composition/information on ingredients

This product does not contain any hazardous ingredients at or above regulated thresholds.

3 . Hazards identification

This preparation is not classified as dangerous.

Physical/chemical hazards - Not classified as hazardous.

Health hazards - Not classified as hazardous.

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

Effects and symptoms

Eyes No significant health hazards identified.

Skin No significant health hazards identified.

Inhalation No significant health hazards identified.

Ingestion No significant health hazards identified.

4 . First-aid measures

Eye contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms appear.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

Notes to physician 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

Suitable - Use foam or all-purpose dry chemical to extinguish. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Not suitable Do not use water jet.

Hazardous decomposition products Combustion products may include the following:
carbon oxides
sulfur oxides
metal oxide/oxides

Unusual fire/explosion hazards - This material is not explosive as defined by established regulatory criteria. -

Special fire-fighting procedures None identified. -

Protection of fire-fighters Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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). Water polluting material.

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.

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.

7 . Handling and storage

Handling Avoid contact of spilt material and runoff with soil and surface waterways.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Not suitable Prolonged exposure to elevated temperature

8 . Exposure controls/personal protection

Ingredient name -	Occupational exposure limits
Base oil - unspecified	**Factory Order (PEL) (SG).** STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral **Factories Order (PEL) (SG).** TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral
Graphite	**Factories Order (PEL) (SG).** PEL (long term): 2 mg/m³ 8 hour(s). Issued/Revised: 1/1997 Form: Respirable Dust
Asphalt	**Factories Order (PEL) (SG).** PEL (long term): 5 mg/m³ 8 hour(s). Issued/Revised: 1/1997 Form: Fume
Carbon black	**Factories Order (PEL) (SG).** PEL (long term): 3.5 mg/m³ 8 hour(s). Issued/Revised: 1/1997
calcium carbonate (limestone)	**Factories Order (PEL) (SG).** PEL (long term): 10 mg/m³ 8 hour(s). Issued/Revised: 1/1997

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Exposure controls

Occupational exposure controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of - vapours below their respective occupational exposure limits. -

Hygiene measures - Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protective equipment

Respiratory system - None required. However, use of adequate ventilation is good industrial practice.

Skin and body - None required; however, use of protective clothing is good industrial practice.

Hands -	Wear protective gloves if prolonged or repeated contact is likely. Chemical-resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Eyes -	Safety glasses with side shields.

9 . Physical and chemical properties

Physical state	Grease
Colour	Black.
Odour	Mild
Flash point	Open cup: 207°C (404.6°F) [Cleveland.]
Explosive properties	Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and shocks and mechanical impacts.
Density -	1014 kg/m^3 (1.014 g/cm^3) at 25°C
Solubility -	insoluble in water.

10 . Stability and reactivity

Stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Materials to avoid	Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Chronic toxicity

Carcinogenic effects	No known significant effects or critical hazards.

12 . Ecological information

Persistence/degradability -	The biodegradability of this material has not been determined.

13 . Disposal considerations

Disposal considerations / Waste information -	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

Not classified as dangerous for transport (IMDG, ICAO/IATA)

15 . Regulatory information

Label requirements

Risk phrases	This product is not classified as hazardous under applicable regulations.

Other regulations

Europe inventory	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are listed or exempted.
Australia inventory (AICS)	All components are listed or exempted.
Canada inventory	All components are listed or exempted.
China inventory (IECSC)	At least one component is not listed.
Japan inventory (ENCS)	Not determined.

Korea inventory (KECI)	At least one component is not listed.
Philippines inventory (PICCS)	At least one component is not listed.

16 . Other information

History

Date of issue/ Date of revision	2008 December 30
Date of previous issue	No previous validation
Prepared by	Product Stewardship

Notice to reader

Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.