



HINDUSTAN PETROLEUM CORPORATION LIMITED
MUMBAI REFINERY
MATERIAL SAFETY DATA SHEET COMPENDIUM

Document Title: MSDS Compendium, Mumbai Refinery

Edition: 1

6.18 MSDS of BS

Section 1: Chemical Product and Company Identification	
1.1 Chemical Product Identifiers:	
1.1.1 Chemical Name	Lubricating oils
1.1.1.1 Trade Name	Bright Stock
1.1.2 CAS No.	74869-22-0
1.2 Relevant identified uses of the chemical product and uses advised against	
Relevant identified uses	Manufacture of substances Intermediate Formulation [mixing] of preparations and/or re-packaging Coatings Cleaning agent Use in Oil and Gas field drilling and production operations Metal working fluids Release agent. Agrochemicals Building and construction work. Road work Manufacture of rubber products. Polymer preparations and compounds Fuels Lubricant Use as laboratory reagent. Mining (including offshore industries). Water treatment chemicals. Functional fluids Binding agent Explosive
Uses advised against	No additional information available
1.3 Details of the supplier of the safety data sheet	
1.3.1 Company Name	Hindustan Petroleum Corporation Limited
1.3.2 Address	HPCL Mumbai Refinery, B D Patil Marg Chembur, Mumbai-400074
1.3.3 Contact No.	022-25076605
1.3.4 Contact person in emergency	Fire & Safety Shift Supervisor
1.4 Emergency Telephone No.:	022-25076606

Section 2: Hazards Identification

2.1 Classification of the chemical product: Not classified

2.2 Label Elements



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Labelling according to Regulation (EC) No 1272/2008 (CLP)

No labelling applicable

2.3 Other hazards except those mentioned in DGCPL Rules, 201:

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

When exposed to heat, may decompose liberating hazardous gases.

Section 3: Composition/Information on Ingredients

3.1 Name of Product: Bright Stock

3.1.1 Systematic Chemical Name or Trivial Name: Lubricating oils

3.1.2 CAS No.: 74869-22-0

Section 4: First-Aid Measures

4.1 Description of first aid measures



4.1.1 Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of breathing difficulties administer oxygen. In case of irregular breathing or respiratory arrest provide artificial respiration. If medical advice is needed, have product container or label at hand.

4.1.2 Skin Contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Rinse thoroughly with plenty of water for at least 20 minutes and take medical advice. If medical advice is needed, have product container or label at hand.

4.1.3 Eye Contact

Rinse immediately and plentifully with water, also under the eyelids, for at least 20 minutes. Seek immediate medical advice. If medical advice is needed, have product container or label at hand.

4.1.4 Ingestion

If swallowed, do not induce vomiting: seek medical advice immediately and show this container label. If swallowed, rinse mouth with water (only if the person is conscious). Drink plenty of water.

4.2 Most important symptoms and anticipated effects both acute and delayed

Aspiration hazard, Irritation, Dizziness, Drowsiness, Narcosis, skin defatting or dermatitis. Slightly irritating to respiratory system. Slightly irritating to eyes. Nausea.

4.3 Advice for immediate medical attention and special treatment needed

Treat symptomatically.



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Section 5: Firefighting Measures

5.1 Extinguishing Media



- **Suitable extinguishing media**
Foam. Carbon dioxide (CO₂). Water fog. Powder.
- **Unsuitable extinguishing media**
Water spray. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the chemical product:

Combustion results toxic gases. Hazardous combustion products are carbon oxides, sulphur Oxides, nitrogen oxides, carbon monoxide.

5.3 Hazardous Combustion Products:

In case of fire may be liberated: Carbon dioxide (CO₂). Sulphur dioxide (SO₂). Nitrogen oxides (NO_x). Carbon monoxide.

5.4 Specific Extinguishing Methods

For this substance/mixture no limitations of extinguishing agents are given

5.4.1 Advice for Fire-Fighters

Cool tanks/drums with water spray/remove them into safety.

5.4.2 Special protective equipment for fire-fighters: In case of fire: Wear self-contained breathing apparatus. Refer to section 8.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:



Advice for non-emergency personnel: Wear suitable protective clothing, gloves and eye/face protection. Refer to section 8. Stop leak if safe to do so. Remove all sources of ignition.

Advice for emergency responders: Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Wear self-contained breathing apparatus. Refer to section 8. Evacuate unnecessary personnel. Remove all sources of ignition. Stop leak if safe to do so. Eliminate leaks immediately.

6.2 Environmental precautions:



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Stop leak if safe to do so. Avoid release to the environment. Contaminated fire-fighting water must be collected separately. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). Do not discharge into drains or the environment.

6.3 Methods and materials for containment and cleaning up:

Advice on how to contain a spill

Collect in closed containers for disposal.

Advice on how to clean up a spill

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases

Relevant water authorities should be notified of any large spillage to water course or drain. Do not allow to enter into soil/subsoil. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

6.4 Reference to other sections:

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

Section 7: Handling and Storage

7.1 Precautions for Safe Handling: Handle in accordance with good industrial hygiene and safety procedures. Use only in well ventilated areas. Use personal protective equipment as required.

7.2 Conditions for Safe Storage, including requirement of hazardous area

Incompatible substances or mixtures

Oxidizing agents, strong.

Consideration of other advice:

Floors should be impenetrable, resistant to liquids and easy to clean. The floor should be leak tight, joint less and not absorbent.

Ventilation requirements

Use local and general ventilation.

Specific designs for storage rooms or vessels

Portable Tanks/vessels.

Section 8: Exposure Controls and Personal Protection

8.1 Control Parameters

National Limit Values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/mS]	STEL [ppm]	STEL [mg/mS]	Ceiling-C [ppm]	Ceiling-C [mg/mS]	Notation
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USA	BS	74869-22-0	ACGIH	0.0005	5	0.001	10			
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Notation

- Ceiling-C: Ceiling value is a limit value above which exposure should not occur
- STEL: Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15- minute period (unless otherwise specified)
- TWA: Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours' time-weighted average (unless otherwise specified)

Human health values

Relevant DNELs and other threshold levels

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	2.7 mg/m ³ /day	human, inhalatory	worker (industry)	Long-term - systemic effects
DNEL	1 mg/kg bw/day	human, dermal	worker (industry)	Long-term - systemic effects
DNEL	0.74 mg/kg bodyweight	human, oral	General Population	Acute - systemic effects
DNEL	1.2 mg/m ³ /day	human, inhalatory	General Population	Long-term - systemic effects

DNEL: Derived No Effect Level

8.2 Exposure Controls

8.2.1 Personal Protective Equipment:

Wear protective gloves/protective clothing/eye protection/face protection. The entire protective clothing must be washed after use. Used working clothes should not be used outside the work area. Do not eat, drink or smoke when using this product.

8.2.2 Suggestions for protection of eye, skin and body and respiratory system:

- Eye/face protection



Wear eye protection/face protection.

- Skin protection





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a. Hand protection

Wear protective gloves.

b. Type of material

PVC (Polyvinyl chloride).

c. Other protection measures

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation.

- **Respiratory protection:** Wear respiratory protection. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must



be used. In case of fire: Wear self-contained breathing apparatus.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	light yellow
Odour	Odourless
Melting point/freezing point	No data available
Boiling point or initial boiling point and boiling range	389-720 °C
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	288 °C ASTM D 92
Pour point	-6 °C
Auto-ignition temperature	360 °C (Combustion point/Fire point: >320°C)
Decomposition temperature	> 400 °C
pH (value)	No data available
Kinematic viscosity	29 cSt to 35 cst @ 100 °C
Viscosity Index	95
<u>Solubility(ies)</u>	
Water solubility	not significant
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	3.9-6
Vapour pressure	< 5 mmHg @ 25°C
<u>Density and/or relative density</u>	
Density	0.9 g/cm ³ @ 20°C



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Relative vapour density	No data available
Particle characteristics	No data available
<u>Other safety parameters</u>	
Oxidising properties	none

9.2 Other Information:

Information with regard to physical hazard classes:

There is no additional information.

Section 10: Stability and Reactivity

10.1 Reactivity

On combustion, forms. Carbon dioxide (CO₂). Sulphur dioxide (SO₂). Nitrogen oxides (NO_x). Carbon monoxide.

10.2 Chemical stability

Stable at normal conditions. When exposed to heat, may decompose liberating hazardous gases.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5 Incompatible materials

Oxidizing agents, strong.

10.6 Hazardous decomposition products

No data available.

Section 11: Toxicological Information

11.1 Information on Toxicological Effects: Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**
Not classified
- **If in eyes**
Not classified
- **If inhaled**
Not classified
- **If on skin**
Not classified
- **Other information**
None



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11.1.1 Acute Toxicity:

Exposure route	Endpoint	Value	Species
Inhalation	LC50	> 5.53 mg/l/4h	rat
Oral	LD50	> 5000 mg/kg	rat
Dermal	LD50	> 2000 mg/kg	rabbit

11.1.2 Skin Corrosion/ Irritation: Not classified

11.1.3 Serious Eye Damage/ Eye Irritation: Not classified

11.1.4 Respiratory or Skin Sensitization: Not classified

11.1.5 Mutagenicity: Not classified

11.1.6 Carcinogenicity: Not classified

11.1.7 Reproductive Toxicity: Not classified.

11.1.8 Specific target organ toxicity-single exposure: Not classified

11.1.9 Specific target organ toxicity - repeated exposure: Not classified

11.1.10 Aspiration Hazard: Not classified

11.1.11 Additional Information: Not classified

Section 12: Ecological Information

12.1 Toxicity: Toxic to aquatic life with long lasting effects.

Endpoint	Value	Species	Exposure time
LC50	> 100 mg/l	fish	96 h
LC50	> 1000 mg/l	aquatic invertebrates	21 days

12.2 Persistence and Degradability: Inherently biodegradable.

12.3 Bio Accumulative Potential: The substance fulfils the very bio accumulative criterion.

n-octanol/water (log KOW)	3.9-6
BCF	132 estimated

12.4 Mobility in Soil: Low mobility (soil).

12.5 Other adverse effects: Data are not available

Section 13: Disposal considerations



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13.1 Waste Treatment Method: Consult the local waste disposal expert about waste disposal. Do not empty into drains or the aquatic environment. Dispose of this material and its container to hazardous or special waste collection point. Disposal must be done according to official regulations.



13.1.1 Local Regulations (if any) on Disposal: Waste material must be disposed of in accordance with the **Hazardous Waste Management Rules-2016**

Section 14: Transport Information

14.1 UN Number: Not Classified

14.2 UN Proper Shipping Name: Not Classified

14.3 Transport Class(es): Not Classified

14.4 Packaging Group: Not Classified

14.5 Environmental Hazards: Not Classified

14.6 Special Precautions for User: Not Classified

Section 15: Regulatory Information

15.1 Safety, health and Environmental: Regulations/legislation specific for the substance or mixture relevant provisions of **Non - Toxic/Flammable Substance** are applicable

Section 16: Other Information

16.1 Date of Issue: March 2023

16.2 Necessity of Specific Training: Working and handling personnel to be trained on following aspects

- i. Chemical hazard awareness
- ii. Safety control measures including PPE
- iii. Housekeeping, hygiene and chemical storage
- iv. Responding to any kind of emergency

16.3 Disclaimer: This M.S.D.S and the information it contains is offered to you in good faith as accurate. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents.