MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: VISCOSITY INDEX IMPROVER
Product Use: NA
Synonyms: BEI 1200

Company Identification	---	M/s. BURJ EIFFEL INT. LUBRICANTS IND. LLC P.O BOX 47480, SHARJAH – UAE
Phone Number	---	TEL: 06 5347815
Fax Number	---	FAX: 06 5347814

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	Weight Percentage	Hazardous in Blend
HIGHLY REFINED BASE OILS	64741-89-5 64741-96-4	75 - 95	No
OLEFIN COPOLYMER	25038-36-2	< 20	No

This product is NOT HAZARDOUS according to OSHA 29 CFR 1910.1200.

3. HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS

EYE : Not expected to cause prolonged or significant eye irritation .

SKIN : Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin .

INGESTION : Not expected to be harmful if swallowed .
INHALATION : This product is not expected to pose an inhalation hazard under conditions of normal use . This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. Acute and chronic overexposures generated under unusual conditions may be irritating to the respiratory tract .

4. FIRST AID INFORMATION

Eye Contact : Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If material is hot, treat for thermal burns and seek immediate medical attention.
Skin Contact : No treatment is necessary under ordinary circumstances. Remove contaminated clothing. Wash contaminated area throughly with soap and water. If material is hot, submerge injured area in cold water. If victim is severely burned, remove to a hospital immediately .
Inhalation : This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If vapor or mist is generated when the material is heated, and the victim experiences signs of respiratory tract irritation, remove to fresh air .
Ingestion : No treatment is necessary under ordinary circumstances. Do not induce vomiting. This material does not present any known ingestion hazard .

5. FIRE AND EXPLOSION INFORMATION

Flammable Properties
Flash Point : >374 °F (190 °C) Test Method: ASTM D 92 (C.O.C.)
Flammable Limits in Air
Upper Percent : NA
Lower Percent : NA

NFPA Ratings : Health: 0 Flammability: 1 Reactivity: 0
Extinguishing Media : Use dry chemical, foam, or carbon dioxide .
Fire Fighting Measures
Special Fire Fighting Procedures and Equipment : Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure buildup and possible container rupture. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid .
Unusual Fire and Explosion Conditions : Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion .
Hazardous Combustion By-Products : None

6. ACCIDENTAL RELEASE MESURES

Spill Procedures
Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

7. HANDLING AND STORAGE INFORMATION

Pumping Temperature: 105 °C (221 °F)
Handling : Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106 – Flammable
and Combustible Liquids .
Maximum Handling Temperature: 125 °C (257 °F)

Storage : Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing materials. See also additional information section below.
Maximum Storage Temperature : 45 °C , 113 °F Empty Container Warnings
Drums : Empty drums should be completely drained, properly bunged and promptly returned to a reconditioned drum, or properly disposed. Empty containers retain product residue and can be dangerous.
Plastic : Do not reuse this container. Empty container may retain product residues.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits : None establisised
Other Exposure Limits : Under conditions which may generate mists , observe the OSHA PEL of 5mg per cubic meter , ACGIH STEL of 10 mg per cubic meter.

Personal Protective Equipment

Eye/Face Protection : No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as good safety practice .
Gloves Procedures Nitrile
Skin Protection : No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc..) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc..). Launder soiled clothes. Properly dispose of contaminated leather articles including shoes, which cannot be decontaminated .
Respiratory Protection : Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handle, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres .
Personal Hygiene : Always wash hands and face with soap and water before eating, drinking, or smoking. Consumption of food and beverage should be avoided in work areas where this product is present . Engineering Control/Work Practices : Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the
recommended mineral oil mist exposure limits .

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Bright Yellow
Pour Point : < 10 °F (-12 °C)
Odor : Petroleum – mild Solubility in Water : Negligible in water
Physical State : Liquid Vapor Pressure : < 0.1 mm Hg
Boiling Point : Not determined Vapor Density (air=1) : NA
Melting Point : NA pH : NA
Specific Gravity : < 1 Viscosity @ 100 °C : 500 – 1,300 cSt

10. STABILITY AND REACTIVITY INFORMATION

Stability Material is normally stable at moderately elevated temperatures and pressures.
Decomposition
Temperature Not determined.
Incompatibility : Oxidizing agents.

Polymerization : Will not occur.
Thermal Decomposition Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.
Conditions to Avoid : Not determined.

11. TOXICOLOGICAL INFORMATION

-- ACUTE EXPOSURE --

Eye Irritation Not expected to cause eye irritation. Based on data from similar materials. Vapors may cause irritation.
Skin Irritation Not expected to be a primary skin irritant. Based on data from similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials. Inhalation of processing mists and vapors may be irritating to the respiratory system.
Dermal Toxicity The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity Overexposure to vapors or mist may cause dizziness, headache, nausea, and/or flu-like symptoms. Avoid inhalation of mists or vapors.
Oral Toxicity The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Ingestion of this material may cause gastrointestinal irritation.
Dermal Sensitization No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity No data available to indicate product or components present at greater than 1% are chronic health hazards.
Carcinogenicity This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity No data available to indicate product or any components contained at greater than 0.1% may ause birth defects.

-- ADDITIONAL INFORMATION --

Other : Pre-existing skin conditions may be aggravated by prolonged or repeated exposure. Persons with sensitive airways (e.g., asthmatics) may react to vapors.

12. ECOLOGICAL INFORMATION

-- ENVIRONMENTAL TOXICITY --

Freshwater Fish
Toxicity : The acute LC50 is > 1000 mg/L based on component data.
Freshwater
Invertebrates Toxicity : Not determined.

Algal Inhibition: Not determined.
Saltwater Fish
Toxicity :Not determined.
Saltwater
Invertebrates Toxicity : Not determined.
Bacteria Toxicity : The acute EC50 is > 1000 ppm based on component data.
Miscellaneous Toxicity :Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation At least 25% of the components in this product show moderate biodegradation based on OECD 301-type test data. At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
Bioaccumulation Less than 1.0% of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility Not determined.

13. DISPOSAL INFORMATION

Regulatory Information : All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Department of Transportation (DOT) regulations may apply for transporting this material when spilled . Waste Disposal Methods : Waste material may be landfilled or incinerated at an approved facility. Materials should be recycled if possible .

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
Highway / Rail (Bulk) : Not Regulated
Highway / Rail (Non-Bulk) : Not Regulated
The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for all shipping descriptions .
International Information
Vessel : IMDG Not Regulated
Air : ICAO Not Regulated

15. REGULATORY INFORMATION

Regulatory Lists Searched: The components listed in Section 2 of this MSDS were compared to substances that appear on the following regulatory lists. Each list is numerically identified. See Regulatory Search Results below.
Health & Safety: 10 - IARC carcinogen, 11 - NTP carcinogen, 12 - OSHA carcinogen, 15 - ACGIH TLV,16 - OSHA PEL, 17 - NIOSH exposure limit, 20 - US DOT Appendix
Environmental: 30 - CAA 1990 Hazardous air pollutants, 31 - CAA Ozone depletors, 33 - CAA HON rule, 34 - CAA Toxic substance for accidental release prevention, 35 - CAA Volatile organic compounds(VOC's) in SOCMI, 41 - CERCLA / SARA Section 302 extremely hazardous substances, 42 - CERCLA /SARA Section 313 emissions reporting, 43 - CWA Hazardous substances, 44 - CWA Priority pollutants, 45- CWA Toxic pollutants, 46 - EPA Proposed test rule for hazardous air pollutants, 47 - RCRA Basis for Listing - Appendix VII, 48 - RCRA waste, 49 - SDWA - (S) MCLs

Chemical CAS Number Percent in Product : Zinc Components Mixture < 13

IARC : No information available

SARA 311 / 312 Categories:
1. Immediate (Acute) Health Effects : No
2. Delayed (Chronic) Health Effects : No
3. Fire Hazard : No
4. Sudden Release or Pressure Hazard : No
5. Reactivity Hazard : No

Chemical Inventories:
Canadian WHMIS Classification : Not a controlled substance under WHMIS
European Union Classification
Hazard Symbols : No classification recommended
Risk Phrases : No classification recommended
Safety Phrases : No classification recommended
WHMIS Classification : This product is not considered a controlled
Product according to the criteria of the
Canadian Controlled products Regulations.

16. OTHER INFORMATION

HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the
National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings). Health and Environmental Label Language
CAUTION : Contains Petroleum Lubricant. Repeated skin contact can cause skin disorders .
ATTENTION : Used motor oil is a possible skin cancer hazard based on animal data. Repeated exposure to oil mist in excess of the OSHA limit (5mg/m3) can result in accumulation of oil droplets in pulmonary tissue .
PRECAUTIONARY MEASURES : Avoid excessive & prolonged skin contact. Wash thoroughly after handling. Avoid generation and inhalation of oil mists .
INSTRUCTIONS IN CASE OF FIRE OR SPILL : In case of fire, use water spray, foam, dry chemical or carbon dioxide. Water spray may be ineffective, but can be used to cool containers. In case of spill, do not use water, soak up with absorbent material .

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:
OSHA - Occupational Safety and Health Administration
TWA - Time Weighted Average
STEL - Short-term Exposure Limit PEL - Permissible Exposure Limit
ACGIH - American Conference of Government Industrial Hygienists
CAS - Chemical Abstract Service Number
API - American Petroleum Institute IMO/IMDG - International Maritime Dangerous Goods Code
DOT - Department of Transportation (USA) MSDS - Material Safety Data Sheet
IARC - International Agency for Research on Cancer
NFPA - National Fire Protection Association (USA)
TLV - Threshold Limit Value NTP - National Toxicology Program (USA)
HMIS -Hazardous Materials Identification System

WHMIS -Workplace Hazardous Materials Information System
NIOSH-National Institute for Occupational Safety and Health
TSCA-Toxic Substances Control Act

Disclaimer of Warranty: - The above information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, SOPUS Products must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information, the results to be obtained from the use thereof, or that any such use do not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assure responsibility for the results of such application. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
Highway / Rail (Bulk): Not Regulated
Highway / Rail (Non-Bulk): Not Regulated
For US shipments, US DOT law requires the shipper to determine the proper shipping descriptionof the material that is being shipped. The shipping information and description contained in this section may not be suitable for all shipments of this material, but may help the shipper determinethe proper shipping description for a particular shipment.
International Information
Vessel: IMDG Regulated: -- IMDG Not Regulated: X
Air: ICAO Regulated: -- ICAO Not Regulated: X
Other: No information available