



MATERIAL SAFETY DATA SHEET

HEALTH, SAFETY AND ENVIRONMENTAL DATA

Material	Marine Lubricants																
Reference	The various marine lubricants supplied by Tramp Oil & Marine Limited, obtained from various manufacturers, are all approved for use as marine lubricants and have no known misuses.																
Composition	Marine lubricants are manufactured from highly refined mineral base oil derived from crude petroleum, and may contain additives, none of which give rise to any additional hazard in the finished product to that posed by the mineral oil components. Should an original manufacturer's data sheet be required please advise.																
Physical and Chemical Properties	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Physical State:</td> <td>Liquid at ambient temperatures</td> </tr> <tr> <td>Appearance:</td> <td>Pale Amber/Dark Brown</td> </tr> <tr> <td>Odour:</td> <td>Characteristic Mineral Oil</td> </tr> <tr> <td>IBP:</td> <td>Greater than 280°C</td> </tr> <tr> <td>Vapour Density (Air = 1):</td> <td>Greater than 5</td> </tr> <tr> <td>Vapour pressure at 20°C:</td> <td>Less than 0.1 kPas</td> </tr> <tr> <td>Sol. In Water:</td> <td>Very low</td> </tr> <tr> <td>Acidity/Alkalinity:</td> <td>Neutral</td> </tr> </table>	Physical State:	Liquid at ambient temperatures	Appearance:	Pale Amber/Dark Brown	Odour:	Characteristic Mineral Oil	IBP:	Greater than 280°C	Vapour Density (Air = 1):	Greater than 5	Vapour pressure at 20°C:	Less than 0.1 kPas	Sol. In Water:	Very low	Acidity/Alkalinity:	Neutral
Physical State:	Liquid at ambient temperatures																
Appearance:	Pale Amber/Dark Brown																
Odour:	Characteristic Mineral Oil																
IBP:	Greater than 280°C																
Vapour Density (Air = 1):	Greater than 5																
Vapour pressure at 20°C:	Less than 0.1 kPas																
Sol. In Water:	Very low																
Acidity/Alkalinity:	Neutral																
Fire and Explosive Hazards	<table style="width: 100%; border: none;"> <tr> <td colspan="2">Flammability Limits</td> </tr> <tr> <td style="width: 50%;">- upper</td> <td>10% volume</td> </tr> <tr> <td>- lower</td> <td>1% volume</td> </tr> <tr> <td colspan="2">Autoignition temperature in °C</td> </tr> <tr> <td></td> <td>Greater than 320</td> </tr> <tr> <td colspan="2">Extinguishants</td> </tr> <tr> <td>Large Fire:</td> <td>Foam/Water Fog Never use water jet</td> </tr> <tr> <td>Small Fire:</td> <td>Foam/Dry/Powder CO₂/Halon/Sand/Earth</td> </tr> </table>	Flammability Limits		- upper	10% volume	- lower	1% volume	Autoignition temperature in °C			Greater than 320	Extinguishants		Large Fire:	Foam/Water Fog Never use water jet	Small Fire:	Foam/Dry/Powder CO ₂ /Halon/Sand/Earth
Flammability Limits																	
- upper	10% volume																
- lower	1% volume																
Autoignition temperature in °C																	
	Greater than 320																
Extinguishants																	
Large Fire:	Foam/Water Fog Never use water jet																
Small Fire:	Foam/Dry/Powder CO ₂ /Halon/Sand/Earth																
Supply and Transport Classification	Safe for supply and transport																
Storage Precautions	<p>Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.</p> <p>CAUTION - DO NOT USE PRESSURE TO EMPTY DRUM OR DRUM MAY RUPTURE WITH EXPLOSIVE FORCE</p>																

<p>Acute Health Hazards and Advice</p>	<p>Toxicity following single exposure to high levels (orally, dermally or by inhalation) is of a low order. The main hazards are: in the unlikely event of ingestion, aspiration into the lungs with possible resultant chemically induced pneumonia; and, if the products are handled under high pressure, of high pressure injection injuries.</p> <p>INHALATION:</p> <p>Under normal conditions of use inhalation of vapours is not feasible or likely to present an acute hazard.</p> <p>SKIN:</p> <p>Skin contact presents no acute health hazard except in the case of high pressure injection injuries. These can lead to the loss of the affected limb if not treated immediately and properly. MEDICAL ATTENTION should be obtained immediately.</p> <p>Precautions: Avoid contact with the skin by use of suitable protective clothing. Where skin contact is unavoidable a high standard of personal hygiene must be practiced. Extreme care must be exercised where the product is likely to be encountered at high pressures and a safe system of work be employed.</p> <p>First Aid: Skin contact does not normally require first aid, but oil soaked clothing should be removed and contaminated skin washed with soap and water. If persistent irritation occurs, medical advice should be sought without delay.</p> <p>EYES:</p> <p>Eye contact may cause some discomfort</p> <p>Precautions: If there is a risk of splashing while handling the liquid, suitable eye protection should be used.</p> <p>First Aid: Flush the eye with copious quantities of water. If irritation persists refer for medical attention.</p> <p>INGESTION:</p> <p>The main hazard following ingestion is of aspiration into the lungs during subsequent vomiting.</p> <p>Precautions: Accidental ingestion is unlikely. Normal handling and hygiene precautions should be taken to avoid ingestion.</p> <p>First Aid: DO NOT INDUCE VOMITING . If ingestion is suspected, wash out the mouth with water and send to hospital immediately.</p>
<p>Chronic Health Hazard and Advice</p>	<p>Prolonged and repeated contact with oil products can be detrimental to health. The main hazards arise from skin contact and in the inhalation of mists. Skin contact under conditions of poor hygiene and over prolonged periods can lead to defatting of the skin, dermatitis, erythema, oil acne and oil folliculitis. Excessive and prolonged inhalation of oil mists may cause a chronic inflammatory reaction of the lungs and a form of pulmonary fibrosis.</p>

Exposure Limit Values	UK maximum exposure limits UK Occupational Exposure Standards Oil mist, Mineral 5 mg/cubic metre 8 hour TWA value 10mg/cubic metre 10 min TWA value
Recommended Protective Clothing	Impervious gloves and overalls where regular contact is likely and goggles if there is a risk of splashing.
Combustion Products	The substances arising from thermal decomposition of these products will largely depend on the conditions bringing about decomposition. The following substances may be expected: Carbon Dioxide, Carbon Monoxide, Water, Particulate Matter, Polycyclic Aromatic Hydrocarbons, Unburnt Hydrocarbons, Unidentified Organic and Inorganic Compounds.
Compiled by	Technical Department Tramp Oil & Marine Limited 1st Floor, Wells House 15/17 Elmfield Road, Bromley Kent, BR1 1LT United Kingdom Telephone: +44 (0)20 8315 7777 Date of compilation: May 1997

This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the date specified above. We have reviewed any information contained herein which we received from sources outside Tramp Oil & Marine Limited. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate 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, recommendation or authorisation given or implied to practice any patented invention without a valid licence. Tramp Oil & Marine Limited shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.