

MSDS -MATERIAL SAFETY DATA SHEET: INTERMEDIATE FUEL OIL - 180 CST

A. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Intermediate Fuel Oil – 180 CST
Other Name	Fuel Oil
Chemical Family	Hydrocarbon Liquid
Product Use	Marine Fuel Oil

B. PRODUCT COMPONENTS

Residual fuel oil consists of variable mixtures of straight run and residual fractions and likely to contain trace amounts of hydrogen sulfide.

C. POTENTIAL EFFECTS OF EXPOSURE

Inhalation

Respiratory irritation, dizziness, nausea and loss of consciousness. In case of exposure death is possible. Diesel exhaust may cause lung cancer.

Eye Contact

Eye irritation may result from contact with liquid mists, and/or vapors.

Skin Contact

Skin irritation may occur upon prolonged or repeated skin contact; also skin contact with hot oil may cause severe thermal burns.

Ingestion

Nausea, vomiting, diarrhea, and restlessness.

Overexposure Effects

This product may contain aromatic oils. Although there is no specific evidence that this material is carcinogenic to humans, experiments have shown that similar materials containing polycyclic aromatic Hydrocarbons have caused skin cancer on test animals. Toxic to fish, aquatic organisms and wildlife. Do not discharge into lakes, streams, ponds and ground water supply.

D. FIRE AND EXPLOSION

Unusual Fire and Explosion Hazards:

Moderately combustible when heated above the flash point, this material will release flammable vapors which if exposed to a source of ignition can burn or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below the normal flash point. Keep away from heat and open flame.

Extinguishing Media:

Use Dry chemical, Halon and Carbon Dioxide Foam and water fog are effective, but may cause frothing.

Special Firefighting Procedures:

For fires involving this material, always use proper protective equipment, including self-contained breathing apparatus. Cool tanks and containers exposed in fire water, improper use of water and extinguishing media containing water may cause frothing which can spread the fire over a larger area.

E. PROTECTION

Respiratory: none is needed under normal conditions with adequate ventilation. If exposure exceeds the control limits, respiratory protective equipment must be worn.

Ventilation

Use adequate ventilation to keep oil mists/vapors below the occupational exposure limits. Special ventilation may be required for handling conditions at elevated temperatures.

Eye

Eye protection (chemical-type goggles and/or face shield) should be worn whenever there is a likelihood of splashing or spaying liquid. Contact lenses should not be worn. Eyewash water should be provided.

Skin

When skin contact is possible, and especially when handling hot material, protective clothing such as gloves, impervious apron, long-sleeves, boots, and face protection must be worn.

F. EMERGENCY AND FIRST AID

Inhalation

Immediately remove from contaminated area to fresh air. For respiratory distress, give oxygen or administer cpr (cardiopulmonary resuscitation), if necessary. Obtain prompt medical attention.

Eye Contact

Flush with clean low-pressure water for at least 15 minutes. If irritation persists, obtain medical attention.

Skin Contact

Remove contaminated clothing. Wash affected area thoroughly with soap and water. If irritation persists, seek medical attention. Wash clothing thoroughly before reuse, but discard contaminated leather goods. Hot liquid may cause burns: flush with cool low-pressure water and get medical treatment.

Ingestion

Do not induce vomiting, since aspiration into the lungs will cause chemical pneumonia. Obtain medical attention promptly.

G. ACCIDENTAL RELEASE MEASURES

Ventilate the area and avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Avoid contact with skin, eyes or clothing.

Reporting

Report spills or releases as required to appropriate authorities.

Methods for cleaning up

Eliminate sources of ignition. Warn occupants and/or ships in the downwind areas of fire and explosion hazard, and warn them to stay clear.

Water Spill

Notify and relevant authorities. Confine with booms if skimming equipment is available to recover the spill for later recycling or disposal. If permitted by local authorities and environmental agencies disperse in unconfined waters. If allowed by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill procedures.

H. HANDLING AND STORAGE

Handling

It contains residual fuels, which must be considered as a potential flammability risk. Light hydrocarbons may be released in the headspace vapors of bunker tanks. The headspace vapors may be flammable at temperatures below the flashpoint of the liquid.

Storage

Store away from heat and open flame. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Black viscous liquid
Color	Dark brown/black
Odor	Petrol oil
Flash Point	>60° C (ASTM D-93 B)
Flammability	Not determinate
Boiling point	>205 C
Density at 15 C Kg/L	0.991 max
Auto-ignition	Not determinate
Pour point C	(+)18-(+)6
Viscosity, kinematic at 50 C	180 max

DISCLAIMER

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use of the product are beyond our control; all risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind. Appropriate warnings and safe handling procedures should be provided to handlers and users.