



Material Safety Data Sheet

Page:	1 of 3
Issued:	08 02 2001
Revised:	14 06 2008
Rev No.:	5
Product:	HFO

COMPANY DETAILS:		
FFS Refiners (Pty) Ltd. 104 Umhlatuzana Road Sea View, Durban 4094 SOUTH AFRICA		Ph: 031 459 5300 Fax: 031 459 5326 Email: ffs@ffs.co.za
1) PRODUCT DETAILS:		
Product name:	Heavy Fuel Oil	
Chemical nature:	Complex mixture of liquid hydrocarbons (C10 to C20).	
Synonyms:	HFO, FO150, HFF	
UN/ SIN:	1268	
2) COMPOSITION		
Complex blend of liquid hydrocarbons (C10 to C20). Contains aromatic oils including polycyclic aromatic hydrocarbon (PAH) compounds. Sulphur content ranges to a maximum of 4.5% by volume.		
Dangerous Substances	% (m/m)	Risk Phrase
Polycyclic Hydrocarbons	5 - 40	Probable carcinogenic, harmful
3) HAZARDS IDENTIFICATION		
Inflammable liquid (flashpoint approx 100°C); may be fatal if inhaled; harmful if swallowed or if absorbed through skin; contains probable carcinogen compounds. Severe skin irritant. Fuel oils are stored and handled hot; risk of thermal burns on skin contact.		
4) FIRST AID MEASURES		
	Symptom and Effect	First Aid
Skin	Prolonged and repeated contact with skin may cause severe irritation; Toxic if absorbed through the skin; potentially carcinogenic; Burns.	Wash with soap and water until no odour remains. Cool burns immediately with cool water. Seek medical advice.
Eyes	Contact with eyes may cause redness, tearing, blurred vision and moderate irritation.	Flush eyes with clean water for 15 minutes. Seek medical advice if irritation persists.
Ingestion	Harmful or fatal if swallowed. Ingestion of this product may cause central nervous system effects.	If victim is alert, give large amounts of water to drink and seek medical advice. Small amounts can be washed from mouth until no taste remains. DO NOT INDUCE VOMITING
Inhalation	Excessive exposure may cause respiratory tract irritation. Repeated prolonged exposure to high concentrations may lead to central nervous system effects, headaches, dizziness and loss of co-ordination.	Immediately remove to fresh air. Give oxygen if required. Seek medical advice if required.
5) FIRE FIGHTING MEASURES		
SMALL FIRES: Use CO ₂ , foam or dry chemical.		
LARGE FIRES: Use CO ₂ , fluoro protein foam or dry chemicals to extinguish the fire. Use water to cool fire-exposed containers/ structures and to protect personnel. Combustion may release toxic chemicals; utilise respirators; avoid low lying areas.		



Material Safety Data Sheet

Page:	2 of 3
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6) ACCIDENTAL RELEASE MEASURES	
Full protective clothing, rubber gloves (PVC, Neoprene, Nitrile, or Viton), gumboots and respirator to be worn. Shut off leaks. Remove all sources of heat or flame. Control spill by use of booms, sand, sawdust or any other suitable available medium. Recover as much free product as possible using pumps or mechanical means. Absorb residue with sawdust, sand or other absorbent material. Avoid the product entering storm water drains or waterways.	
7) HANDLING AND STORAGE	
Handling: Full protective clothing should be worn when handling the product. A high standard of personal hygiene is essential. Application of protective hand creams may be beneficial.	
Handling temperature: Avoid extreme temperatures	
Storage: Store away from strong oxidisers. Incompatible with sulphuric acid, nitric acid, caustics, aliphatic amines and amides.	
Storage Conditions: Storage conditions should comply with SANS Code 10131:2004 and SANS Code 10089:2003. Product should be stored in a well ventilated area. Sparks, flames and other sources of ignition near the product should be avoided. Do not eat, drink or smoke in storage area.	
8) EXPOSURE CONTROLS/ PERSONAL PROTECTION	
Occupational Exposure Limits:	OHSA 0.2mg/m ³ TWA OEL-RL
Controls:	Store in accordance with SANS Code 10131:2004 or SANS Code 10089:2003
Personal Protection:	Ensure adequate tank ventilation If engineering controls and work practices are not effective in controlling this material, then wear suitable personal protection equipment including overalls, impervious gloves, respirators, safety goggles, safety boots or gumboots.
9) PHYSICAL AND CHEMICAL PROPERTIES	
Black viscous liquid with characteristic hydrocarbon odour. Low solubility in water. Density @ 20 ^o C, kg/l: 0.96 - 1.02 Flashpoint @ 101, 325 kPa: 66 ^o C Boiling Point: +150 ^o C Viscosity (cSt): 120 @ 50 ^o C	
10) STABILITY AND REACTIVITY	
Partially volatile at temperatures in excess of 70 ^o C; avoid strong oxidisers. Incompatible with sulphuric acid, nitric acid, caustics, aliphatic amines and amides.	
11) TOXICOLOGICAL INFORMATION	
Some components of the product are suspected carcinogens. Potential harmful effects to liver, kidneys, heart, lungs and nervous system may result from chronic over exposure. Some of the components of the product have been associated with immunological, reproductive, fetotoxic and genotoxic effects.	



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Page:	3 of 3
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12) ECOLOGICAL INFORMATION

No ecological problems are expected if the product is handled and used with due care. When released to the environment, some evaporation and bio-degradation will occur. Some components of the product are soluble in water and may contaminate groundwater reserves. Some components of the product will persist in soil. Material is moderately toxic to aquatic organisms.

13) DISPOSAL CONSIDERATIONS

Do not flush to drain/ storm sewer. Product must be disposed of in an approved hazardous waste disposal site or an approved incinerator.

14) TRANSPORT INFORMATION

SIN	1268
ICS:	Class 3: Group III
IMDG Code:	Class 3
Marine Pollutant:	Yes

15) REGULATORY INFORMATION

National Legislation	N/A
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16) OTHER INFORMATION

For more information please contact FFS Refiners' Customer Services Department on (031) 459 5300

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