

FUEL OIL

MATERIAL SAFETY DATA SHEET

1. IDENTITY OF MATERIAL

Product Name : Fuel Oil (FO-180 CST , FO-380 CST, LSHS) (Producer/User : VBU, CPP,OM&S, Marketing)		Chemical Designation : A complex Mixture of Hydrocarbons	
Trade Name: FO(180 CST), FO(380 CST)		Synonyms: Residual Fuels, Furnace Oil.	
Formula: A complex mixture of Hydrocarbons	Label : Category Class : 3	CAS Number: 68476 – 33.5	UN Number : 1223
Regulated Identification: UN no-1223	Shipping Name Codes / Label: Class C Flammable Liquid..		Hazchem Code : 2PE

2. PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Liquid	Boiling Point in ° C. : 185 – 500°C	Vapour Pressure at 20 ° C : < 1---mm HG
Appearance(Colour) : Brown to black colour	Melting / Freezing Point in degree C: ---	Evaporation rate at 30 ° C: ----
Odour : Characteristic smell (Diesel like)	Vapour Density (Air-1): 3.00 – 5.00 (Heavier Than Air.)	Solubility in water at 30 ° C: Insoluble
Others (Corrosivity, Etc):---	Specific Gravity (Water-1): 0.9 (Lighter Than Water.)	pH: Neutral.

3. FIRE AND EXPLOSION HAZARDS DATA

Explosion / Flammability: Flammable	Flash Point : 66° C	Flammability Range : 1% to 5%	Auto ignition Temperature : 263-407° C
--	----------------------------	----------------------------------	--

4. REACTIVE HAZARDS

	Impact : Stable	Hazardous Combustion Products): Carbon Di-Oxide(CO₂), Carbon Monoxide(CO), Sulphur Dioxide(SO₂)
--	------------------------	---

Stability :	Static Discharge: Yes	(Hazardous Decomposition Products) : ---
	Reactivity : ---	(Conditions to avoid) : ---
Hazardous Polymerization:---	May Not Occur	(Conditions to avoid) : ---

5. HEALTH HAZARD DATA

Routes of Entry : (Inhalation, Skin, Mucous Membranes, Eye Contact and Ingestion)

Effects of Exposure / Symptoms: **Spontaneous Vomiting, Oil Acne.**

LD 50 (in rat) Orally or percutaneous absorption)
(mg / kg body weight) : ---

LC 50 (in rat)
(mg/1hour.) : ---

Permissible Exposure Limit (PEL) : ppm mg /cu. m
--- 5

Threshold Limit Value(TLV) of ACGIH
(If H2S is present.) : ppm mg/cu. m
--- 10

Emergency Treatment: **Do Not Induce Vomiting If Ingested. Affected Body Parts Should Thoroughly Be Washed With Water And Soap.**

6. HAZARD SPECIFICATION

NFPA HAZARD SIGNAL	HEALTH: 2	FLAMMABILITY: 2	STABILITY: 0	SPECIAL: 0
--------------------	-----------	-----------------	--------------	------------

Known Hazards

Combustible Liquid : Yes	Water Reactive Material: No	Irritant: Yes
Flammable Material: Yes	Oxidiser: No	Sensitiser: : No
Pyrophoric Material: No	Organic Peroxide: No	Carcinogen: No
Explosive Material: No	Corrosive Material: No	Mutagen: No
Unstable Material: No	Compressed Gas: No	Others (Specify): No

7. SAFE USAGE DATA

Ventilation	Mechanical
Personal Protective Equipment Required	Eyes (Specify): Safety Goggle/Face shield.
	Respiratory (Specify): Emergency Life Saving Apparatus(ELSA) / Self Contained Breathing Apparatus(SCBA).
	Gloves (Specify) : Asbestos / PVC
	Clothing (specify): Boiler Suit.
Precautions	Handling & Storage Others (Specify) : Store At Cool, Ventilated & Specified Area.

8. EMERGENCY RESPONSE DATA

	Fire Extinguishing Media: Carbon Di-Oxide (CO₂), Dry Chemical Powder(DCP), Aqueous Film Forming Foam.
Fire	Special Procedures: Water Spray To Be Used To Cool Containers If Exposed To Fire.
Exposure (Skin and eye contact, inhalation, Ingestion)	First Aid Measures : Do Not Induce Vomiting If Ingested. Affected Body Parts To Be Washed With Water And Soap. Wash Eyes Thoroughly With Water, Seek Medical Help.
Spills	Steps to be taken: Recover Spillage Using Absorbent Material Like Sawdust, Sand, Do Not Push In To Drainage.
	Waste disposal method: Recover Spillage Using Absorbent Material Like Sawdust, Sand & Land Fill.

9. ADDITIONAL INFORMATION (DOS & DON'T)

- In case of leaks monitor %LEL, restrict ignition sources. Stop traffic/vehicular movements and dilute vapor cloud with water spray.
- Look for wind direction.
- Approach from upwind side.
- If caught on downwind, move perpendicular to wind direction and assemble at nearest safe assembly point.
- Cordon off the area.
- Use Self Contained Breathing Apparatus Set in case of Fire.
- Contain leaking liquid on sand or earth.
- Do not Panic.
- Do not enter without knowing the wind direction.

- Do not approach leaking / affected area without proper respiratory protection.
- Do not approach from downwind direction
- Do not run.
- Do not move along or opposite to the direction of wind.
- Do not allow unauthorized personnel.

10. SOURCES USED

1. Hazardous chemicals desk reference. By – Rochar. J. Lewis.

11. MANUFACTURER / SUPPLIER DATA

Firm's Name: Mangalore Refinery & Petrochemicals Ltd.	Standard Packing : Transporation In Bulk Tanker OF 12 T,16 T, 18T Capacities, Ship, Pipelines.
Mailing Address: At P.O Kuthethoor, Mangalore-575030 (D.K.)	Emergency Telephone During Transit : (0824)2270400
Telephone Number: (0824)2270400	
TeleFax. Number : (0824)2270013	
Contact Persons In Case of Emergency:	
Head(Operations) TEL: :(0824)2270400,Ext(O)2440,(R)4440	
Head-Marketing TEL: :(0824)2270400, Ext(O)2107	
Fire & Safety ,Control Room TEL: :(0824) 2270279, 2270400,Ext-2333/3333,2555	