



HELLENIC PETROLEUM S.A.

MATERIAL SAFETY DATA SHEET FOR HEAVY FUEL OIL, RME380, 4TH VERSION, APRIL 2008

1. PRODUCT AND COMPANY DATA

1.1 PRODUCT DATA :

CAS Number : 92045-14-2

INECS Number : 295-396-7

USE : As external combustion fuel for different types of engines, mainly for industrial purposes (boilers, furnaces)

1.2 COMPANY DATA :

- HELLENIC PETROLEUM S.A., 17th km National Road Athens - Korinthos, 193 00 ASPROPYRGOS, GREECE
- EMERGENCY TELEPHONE NUMBERS : + 30 - 210 - 5533000, + 30 - 210 - 5539000
- PERSON RESPONSIBLE FOR MARKETING THE PRODUCT : Director of Supply, International Sales and Risk Management, tel. : + 30 - 210 - 5539090.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Complex combination of saturated olefins and aromatic hydrocarbons, having carbon numbers predominantly in the range of C₂₀ - C₅₀. The mixture also contains asphaltenes, small quantities of heterocyclic components with sulphur, nitrogen and oxygen as well as traces of heavy metals (vanadium, nickel).

It is a mixture (partly or whole) produced from atmospheric residue and residue from thermal or catalytic cracking. It may also contain diesel or kerosene.

- **Hazardous components** : Polynuclear Aromatic Hydrocarbons, (mainly of 3-7 rings at 8% m/m if produced from atmospheric distillation and up to 20% if produced from thermal or catalytic cracking).

CLASSIFICATION OF THE MOST HAZARDOUS COMPONENTS +

- **naphthalene** Carcinogenic Category 3, Harmful Xn, Dangerous for the Environment N
Risk phrases : R40, R22, R50/53
- **benzo{a}pyrene** Carcinogenic Category 2 T, Mutagenic Category 2, Reproductive Toxicant Category 2, Dangerous for the Environment N
Risk phrases : R45, R46, R60/61, R50/53
- **benzo{e}pyrene** Carcinogenic Category 2 T, Dangerous for the Environment N
Risk phrases : R45, R50/53
- **benzo{a}anthracene** Carcinogenic Category 2 T, Dangerous for the Environment N
Risk phrases : R45, R50/53
- **dibenzo{a,h}anthracene** Carcinogenic Category 2 T, Dangerous for the Environment N
Risk phrases : R45, R50/53

3. HAZARDS IDENTIFICATION

SAFETY

- Risk of fire if product is heated to temperature higher than the flash point.
- Although heavy fuel oil RME380 is not classified as flammable, accumulation of light hydrocarbons vapors on storage tanks' top is possible, resulting to concentrations within explosion limits even under temperatures below the flash point.
- Risk of explosion/ignition if product comes in contact with warm surfaces or leaks through high-pressure piping.

+ According to Decision 41/2002 of the Supreme Chemical Council, Government Gazette 755B/2002

