



HELLENIC PETROLEUM S.A.

MATERIAL SAFETY DATA SHEET FOR MARINE DIESEL, 3<sup>rd</sup> VERSION, JULY 2006

**1. PRODUCT AND COMPANY DATA**

**1.1 PRODUCT DATA :**

**CAS Number : 68334-30-5**

**EINECS Number : 269-822-7**

**USE :** As internal combustion fuel of special specifications, for ship supply.

**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 paraffins, olefins, naphthenes and aromatic hydrocarbons, having carbon numbers predominantly in the range of C<sub>10</sub> - C<sub>28</sub>. These hydrocarbons are petroleum distillates (typical composition : 70-80% aliphatic, 20-30% aromatic and less than 5% olefins) or products of pyrolysis (typical composition : up to 75% aromatic, up to 25% aliphatic, up to 10% olefins) or mixtures of them.

- **Hazardous components** : Polycyclic Aromatic Hydrocarbons, (mainly of 2-3 rings and relatively minor concentrations of 4-6 rings in petroleum distillates, but increased concentrations of 4-6 rings in products of pyrolysis).

**CLASSIFICATION OF THE MOST HAZARDOUS COMPONENTS \***

- naphthalene Carcinogenic Category 3, Harmful Xn,  
Dangerous for the Environment N  
**Risk phrases : R40, R22, R50/53**
- trimethyl-benzene-1,2,4 Harmful Xn, Irritant Xi,  
Dangerous for the Environment N  
**Risk phrases : R10, R20, R36/37/38, R51/53**
- trimethyl-benzene-1,3,5 Irritant Xi, Dangerous for the Environment N  
**Risk phrases : R10, R37, R51/53**
- n-propyl-benzene Harmful Xn, Irritant Xi  
Dangerous for the Environment N  
**Risk phrases : R10, R37, R65, R51/53**

**3. HAZARDS IDENTIFICATION**

**SAFETY**

- Risk of fire if product is heated to temperature higher than the flash point.
- Marine diesel burns fiercely when ignited.
- The low vapor pressure (relatively to more volatile petroleum products), reduces the risk of formation of an explosive atmosphere.
- Risk of accumulation of electrostatic charge in liquid which can cause incendiary electrical discharge.

**HEALTH**

- Under normal conditions of use and practice, marine diesel will not present a hazard to health, providing excessive skin contact is avoided.
- There is no significant risk of exposure to marine diesel vapors under ambient temperature, due to the relatively low volatility.
- The presence of polycyclic aromatic hydrocarbons in marine diesel is considered harmful, especially if they are obtained from cracking / hydrocracking processes.
- Risks to health are minimized when the necessary precautions are taken, as storage and product handling take place in closed systems.



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**ENVIRONMENT**

- Pollution of water resources with marine diesel can cause mortality to aquatic life.
- Pollution of soil with large quantities of marine diesel can cause penetration of the product into the groundwater level.

**CLASSIFICATION AND LABELLING OF PRODUCT ACCORDING TO DECISION 41/2002 OF THE SUPREME CHEMICAL COUNCIL**

Harmful, **Xn\***  
Carcinogenic Category 2, **T<sup>+</sup>**  
Carcinogenic Category 3, **Xn\***  
Dangerous for the Environment, **N**



\*♦

Risk phrases : **R38<sup>□</sup>, R40<sup>\*</sup>, R45<sup>□</sup>, R51/53, R65, R66<sup>\*♦</sup>**

**4. FIRST AID**

**GENERAL INSTRUCTIONS**

- It is necessary to isolate the area from all potential sources of ignition.
- The area to which the casualty will be transferred must be well ventilated.
- All clothing must be drenched with water before taken off, in order to prevent static electricity hazard.

**SKIN**

- Remove casualty from the incident area.
- Take off clothing.
- Wash carefully with cold water and neutral soap body parts which come into contact with the product.
- If skin looks dry, carefully anoint with lanolin cream.
- If skin has blisters and looks inflamed, continue washing with plenty of sterilized water and seek medical advice immediately.

**EYES**

- Remove casualty from the incident area.
- Wash eyes carefully with plenty of running water for 15', keeping eyelids open.
- Seek medical advice – refer to oculist if pain or inflammation persists after washing.
- DO NOT administer collyrium or other liquid without medical approval.

**INGESTION**

- Remove casualty to a quiet, cool and well ventilated place.
- DO NOT induce vomiting (risk of pulmonary complications).
- Place casualty in supine position, with feet slightly elevated.
- Loosen belt and collar, cover with blanket.
- Seek medical advice.

**RECOMMENDATION :**

As antidote, administer a spoonful of medicinal paraffin oil, to be followed by a glass of water containing a spoonful of magnesium or sodium sulfate, in order to slow down absorption through the gastrointestinal tract. Gastric lavage should only be performed after endotracheal intubation in view of the risk of aspiration which can cause inflammation of the lungs.

**INHALATION**

Remove patient to a quiet, cool and well ventilated place.

**A. If patient remains conscious**

- Place patient in supine position, with feet slightly elevated.
- Loosen belt and collar, cover with blanket.
- Seek medical advice.

