

Date : 30 Nov 2009

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

PRODUCT NAME : **ETRO 4**
CHEMICAL DESCRIPTION : Hydrocarbons C₂₀ – C₅₀
SUPPLIER : PETRONAS Marketing (Netherlands) BV.
ADDRESS : Rivium 1e Straat N°42
 2909 LE Capelle a/d IJssel
 Netherlands
EMERGENCY TEL. NO. : +31104337620

2. Composition / Information on Ingredients

<u>INGREDIENT DESCRIPTION</u>	<u>PERCENT</u>	<u>CAS NUMBER</u>
Distillate, Hydrotreated Heavy Paraffines	100	64742-54-7

3. Hazards Identification

Health : Unlikely to cause eye irritation
 Unlikely to cause immediate irritation but prolonged and repeated contact may be harmful to the skin.
 Not volatile. Not likely to be an inhalation hazard at normal ambient temperatures.
 If overheated, fumes and vapours are slightly irritating to the breathing passages and lungs.
 Ingestion is unlikely to cause adverse systemic health effects.

Environmental : Although no specific ecological hazards are expected and bioaccumulation is unlikely, spillage into the environment should always be avoided.

Physical / Chemical : Not applicable

Additional information : None

4. First Aid Measures

Eye Contact	:	Flush thoroughly with plenty of water until irritation stops. If irritation continues, call a physician.
Skin Contact	:	Wash contact areas with soap and water.
Inhalation	:	Remove the affected person to fresh air. If recovery is not rapid, obtain medical attention.
Ingestion	:	Do not induce vomiting. No emergency measures are needed but if adverse health effects follow refer to medical attention.

5. Fire-Fighting Measures

Extinguishing Media	:	Water fog, foam, dry chemical powder or carbon dioxide (CO ₂).
Special Fire Fighting Procedures	:	Water or foam may cause frothing. However, water spray may be used to cool fire-exposed containers and flush spills away from exposure. Prevent any runoffs from fire control entering streams, sewers or drinking water supply.
Special Protective Equipment	:	For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
Unusual Fire and Explosion Hazards	:	None. Flash point °C(F) : > 220 (428) (ASTM D 92) Flammable limits – LEL : 0.6%, UEL : 7.0%
NFPA Hazard ID	:	Health : 0, Flammability : 1, Reactivity : 0
Hazardous Decomposition Products	:	Carbon monoxide

6. Accident Release Measures

Procedures if material is released or spilled :

Contain and adsorb on fire retardant sawdust or diatomaceous sand/earth. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

Environmental Precautions : Prevent spills from entering storm sewers or drains and contact with soil.

Personal Precautions : No special measures needed.

7. Handling and Storage

- Handling** : No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
- Storage** : Do not store in open or unlabelled containers. Water contamination should be avoided. Store away from strong oxidizing agents (e.g. hydrogen peroxides, bromide chromic acid) or combustible material.

8. Exposure Controls / Personal Protection

This product does not contain any components which have recognised Occupational Exposure Limits. An estimated 8 hour TWA of 0.2 mg/m³ is recommended.

- Ventilation** : No special requirement. A well-ventilated work place is adequate.
- Respiratory Protection** : No special equipment is necessary in a well-ventilated work place.
- Eye Protection** : Normal industrial eye protection practices should always be employed.
- Skin Protection** : No special equipment required. However, good personal hygiene practices should always be allowed.
- Exposure Limit** : The components of this product do not have recognized exposure limits.

9. Physical and Chemical Properties

Physical state	:	Oily liquid
Appearance	:	Bright and clear
Boiling point, °C (F)	:	> 316 (600)
Flash point, °C (F)	:	> 200 (392) (ASTM D 92)
Vapor pressure – mmHg 20°C	:	< 0.1
Vapor density	:	> 2.0
Relative density, 15/4 °C, kg/l	:	0.85
Solubility in water	:	Negligible
Viscosity @40°C, cSt	:	19.1
Viscosity @ 100°C, cSt	:	4.2
Pour point, °C (F)	:	-15 (5)
Polycyclic Aromatics, %	:	<0.5 (IP346)

10. Stability and Reactivity

- Stability (Thermal, Light, etc)** : Stable
- Conditions to avoid** : Extreme heat and open flame
- Incompatibility (Materials to avoid)** : Strong oxidizers like hydrogen peroxide
- Hazardous Decomposition Product** : Thermal decomposition or incomplete combustion may produce oxides of carbon and irritating fumes.
- Hazardous Polymerization** : Will not occur
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11. Toxicological Information

- Oral Toxicity (Rats)** : Practically non-toxic (LD₅₀) greater than 2000 mg/kg. Base on testing of similar products and/or the components.
- Dermal Toxicity (Rabbits)** : Practically non-toxic (LD₅₀) greater than 2000 mg/kg. Based on testing of similar products and/or the components.
- Inhalation Toxicity (Rats)** : Not applicable. Harmful concentrations of mists and/or vapours are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.
- Eye Irritation (Rabbits)** : Based on testing essentially similar product, is practically non-irritating. (Primary Draize score : 0 or greater but less than 6)
- Skin Irritation (Rabbits)** : Based on testing essentially similar product, is practically non-irritating. (Primary Irritation index : greater than 0.5 but less than 3)

12. Ecological Information

- Mobility** : Little mobility in soil. Some components may penetrate the soil causing ground water pollution. Will spread on the water surface.
- Degradability** : Not readily biodegradable.
- Ecotoxicity / bioaccumulation** : Not expected to be dangerous for the aquatic environment.

13. Disposal Considerations

- Waste Disposal** : Product is suitable for burning in an enclosed, controlled burner for fuel value or disposed by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.
- RCRA Information** : The unused product, in our opinion is not specifically listed by EPA as a hazardous waster (40 CFR, Part 261D), nor is formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with

contaminants as determined by the Toxicity and Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. Transport Information

The product is not classified as hazardous goods for land, sea and air transport according to the respective regulations (USA DOT, IMO, IATA, RID, ADR).

15. Regulatory Information

EC Labelling / Classification :

Symbol(s)	:	None
Contains	:	
R phrases	:	None
S phrases	:	None
Other regulations	:	None

16. Other Information

CONCAWE product dossier no. 97/108 "lubricating basestocks"

DISCLAIMER : Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses 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 and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use of suitability of the product. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.