SECTION 1: Identification of the hazardous chemical and of the supplier

Product identifier
Product name: ETRO 4
Synonyms: Automotive Engine Oil
REACH Registration Number: 01-2119484627-25-XXXX

Recommended use of the chemical and restrictions on use
Recommended use: Base oil for Automotive Engine Oil

Manufacturer or supplier’s details
Plant Site
Address: Persiaran Penapisan, 76300 Sungai Udang, Melaka, Malaysia
Emergency telephone number: (+606)-352 2444 (Fire Station Radio Operator)
National Poison Centre:
+604-6570099 (Mon-Fri: 8.10 am - 5.10 pm)
+6012-4309499 (Mon-Fri: 5.10 pm - 10.10 pm) & (Sat, Sun & Public holiday: 8.10 am - 5.10 pm)

SECTION 2: Hazards identification

Classification of the hazardous chemical
Aspiration hazard: Category 1

Label elements
Hazard pictograms:

Signal word: Danger
Hazard statements: H304 May be fatal if swallowed and enters airways.
Precautionary statements: Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards which do not result in classification
No information available.
SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : UVCB

<table>
<thead>
<tr>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paraffinic Distillate, Heavy, Hydrotreated</td>
<td>64742-54-7</td>
<td>&gt;= 99 &lt;= 100</td>
</tr>
</tbody>
</table>

Other information : Contains less than 3 % DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulfoxide extraction refractive index method’

SECTION 4: First aid measures

If inhaled : If unconscious, place in recovery position and seek medical advice.
In case of skin contact : If on clothes, remove clothes.
In case of eye contact : Flush eyes with water as a precaution.
If swallowed : Keep respiratory tract clear.
General advice : Move out of dangerous area.
Most important symptoms and effects, both acute and delayed : No information available.

SECTION 5: Firefighting measures

Extinguishing media
Unsuitable extinguishing media : High volume water jet

Physicochemical hazards arising from the chemical

Special protective equipment and precautions for fire-fighters
Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
Specific extinguishing methods : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures
SECTION 7: Handling and storage

Handling

Precautions for safe handling
Advice on protection against fire and explosion: Normal measures for preventive fire protection.
Advice on safe handling: Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Storage

Conditions for safe storage, including any incompatibilities
Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage stability: No decomposition if stored and applied as directed.

SECTION 8: Exposure controls and personal protection

Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffinic Distillate, Heavy, Hydrotreated</td>
<td>64742-54-7</td>
<td>TWA (Mist)</td>
<td>5 mg/m3</td>
<td>MY PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Inhalable fraction)</td>
<td>5 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Further information: Upper Respiratory Tract irritation, Not classifiable as a human carcinogen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Individual protection measures, such as personal protective equipment

Eye/face protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin protection: Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hand protection: Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Hygiene measures: Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

SECTION 9: Physical and chemical properties

Appearance: Liquid

Colour: Clear and bright

Odour: No data available

Odour Threshold: No data available

pH: No data available

Pour point: -18 °C Method: ASTM D 97

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: 220 °C Method: ASTM D92

Evaporation rate: Method: ASTM D 5800 BEvaporation Loss: NOACK <= 15 % mass

Flammability (solid, gas): Not applicable

Self-ignition: No data available

Upper explosion limit / Upper flammability limit: 7 % (V)

Lower explosion limit / Lower flammability limit: 0.6 % (V)

Vapour pressure: No data available

Relative vapour density: No data available

Relative density: No data available

Density: 0.8319 g/cm3 (15 °C) Method: ASTM D 4052

Solubility(ies)

Water solubility: Insoluble

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity

Viscosity, dynamic: No data available

Viscosity, kinematic: 19.18 mm2/s (40 °C) 4.26 mm2/s (100 °C) Method: ASTM D 445 Viscosity index >= 130 (Method: ASTM D2270)

SECTION 10: Stability and reactivity

Reactivity: Hazardous polymerisation does not occur.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Fumes, smoke, carbon monoxide

SECTION 11: Toxicological information

Acute toxicity

**Product:**
- Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity: LC50 (Rat): > 5.53 mg/l
- Test atmosphere: dust/mist
- Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg

Components:
- **Paraffinic Distillate, Heavy, Hydrotreated:**
  - Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
  - Acute inhalation toxicity: LC50 (Rat): > 5.53 mg/l
  - Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Components:
- **Paraffinic Distillate, Heavy, Hydrotreated:**
  - Species: Rabbit
  - Result: No skin irritation

Serious eye damage/eye irritation

Components:
- **Paraffinic Distillate, Heavy, Hydrotreated:**
  - Species: Rabbit
  - Result: No eye irritation

Respiratory or skin sensitisation

Components:
- **Paraffinic Distillate, Heavy, Hydrotreated:**
  - Exposure routes: Skin contact
  - Result: No evidence of skin sensitization.
  - Exposure routes: Inhalation
  - Remarks: No data available

Germ cell mutagenicity

Components:
- **Paraffinic Distillate, Heavy, Hydrotreated:**
  - Germ cell mutagenicity - Assessment: No data available

Carcinogenicity

**Product:**
- Carcinogenicity - Assessment: Not suspected to be carcinogenic.
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Carcinogenicity - Assessment: Contains less than 3 % DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method’

Reproductive toxicity
Product:
Reproductive toxicity - Assessment: Not suspected to be a reproductive toxicant.

Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Reproductive toxicity - Assessment: Not suspected to be a reproductive toxicant.

STOT - single exposure
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Assessment: No specific organ toxicity following single exposure.

STOT - repeated exposure
Product:
Assessment: No specific organ toxicity following repeated exposure.

Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Assessment: No specific organ toxicity following repeated exposure.

Aspiration toxicity
Product:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12: Ecological information

Ecotoxicity
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Toxicity to fish: LC50 (Fish): \(> 100 \text{ mg/l}\)
Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 (Crustaceans): \(> 100 \text{ mg/l}\)
Exposure time: 48 h
Toxicity to algae: ErC50 (Algae): \(> 100 \text{ mg/l}\)
Exposure time: 72 h
Toxicity to fish (Chronic toxicity): NOEC (Fish): \(> 1 \text{ mg/l}\)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia sp. (water flea)): > 1 mg/l
Toxicity to microorganisms : Remarks: No data available

Persistence and degradability
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Biodegradability : Result: Inherently biodegradable.

Bioaccumulative potential
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Partition coefficient: n-octanol/water : log Pow: 2 - 6

Mobility in soil
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Mobility : Medium: Soil
Remarks: No data available

Other adverse effects
Product:
Additional ecological information : No data available
Components:
Paraffinic Distillate, Heavy, Hydrotreated:
Additional ecological information : No data available

SECTION 13: Disposal information
Disposal methods
Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
SECTION 14: Transport information

International Regulations

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

SECTION 15: Regulatory information

Safety, health, and environmental regulations specific for the hazardous chemical
Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

The components of this product are reported in the following inventories:

REACH  :  This mixture contains only ingredients which have been registered according to Regulation (EC) No. 1907/2006 (REACH).
DSL     :  All components of this product are on the Canadian DSL
AICS    :  On the inventory, or in compliance with the inventory.
NZIoC   :  On the inventory, or in compliance with the inventory.
ENCS    :  On the inventory, or in compliance with the inventory.
ISHL    :  On the inventory, or in compliance with the inventory.
KECI    :  On the inventory, or in compliance with the inventory.
PICCS   :  On the inventory, or in compliance with the inventory.
IECSC   :  On the inventory, or in compliance with the inventory.
TCSI    :  On the inventory, or in compliance with the inventory.
TSCA    :  On TSCA Inventory.

SECTION 16: Other information

SDS preparation date     :  10.02.2015
Revision Date            :  18.11.2019
Sources of key data used to compile the Safety Data Sheet : CONCAWE - The oil companies’ European association for Environment, Health and Safety in refining and distribution (2017)

Full text of other abbreviations
(Q)SAR - (Quantitative) Structure Activity Relationship
ACGIH - American Conference of Governmental Industrial Hygienists
AICS - Australian Inventory of Chemical Substances
ANTT - National Agency for Transport by Land of Brazil
ASTM - American Society for the Testing of Materials
bw - Body weight
CCHC - Chemicals Classification and Hazard Communication
CMR - Carcinogen, Mutagen or Reproductive Toxicant
CPR - Controlled Products Regulations
DIN - Standard of the German Institute for Standardisation
DSL - Domestic Substances List (Canada)
ECx - Concentration associated with x% response
ELx - Loading rate associated with x% response
EmS - Emergency Schedule
ENCS - Existing and New Chemical Substances (Japan)
ErCx - Concentration associated with x% growth rate response
ERG - Emergency Response Guide
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
GLP - Good Laboratory Practice
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 - Half maximal inhibitory concentration
ICAO - International Civil Aviation Organization
ICOP - Industry Code of Practice on Chemicals Classification and Hazard Communication
IECSC - Inventory of Existing Chemical Substances in China
IMDG - International Maritime Dangerous Goods
IMO - International Maritime Organization
ISHL - Industrial Safety and Health Law (Japan)
ISO - International Organisation for Standardization
KECI - Korea Existing Chemicals Inventory
LC50 - Lethal Concentration to 50% of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL - International Convention for the Prevention of Pollution from Ships
MY PEL - Malaysian Permissible Exposure Limit
n.o.s. - Not Otherwise Specified
Nch - Chilean Norm
NITE - National Institute of Technology and Evaluation
NO(A)EC - No Observed (Adverse) Effect Concentration
NO(A)EL - No Observed (Adverse) Effect Level
NOELR - No Observable Effect Loading Rate
NOM - Official Mexican Norm
NTP - National Toxicology Program
NZIoC - New Zealand Inventory of Chemicals
OCSSPP - Office of Chemical Safety and Pollution Prevention
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic
PICCS - Philippines Inventory of Chemicals and Chemical Substances
SADT - Self-Accelerating Decomposition Temperature
SDS - Safety Data Sheet
STEL - Short Term Exposure Limit
TCASI - Taiwan Chemical Substance Inventory
TDG - Transportation of Dangerous Goods
TSCA - Toxic Substances Control Act (United States)
TWA - Time Weighted Average
UN - United Nations
UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods
UVCB - Unknown or Variable Composition, Complex Reaction Products and Biological Materials
vPvB - Very Persistent and Very Bioaccumulative
WHMIS - Workplace Hazardous Materials Information System
LLx - Loading rate associated with x% lethality effect

Further information
Other information: Contains less than 3% DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method’

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