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

**Product identifier**

Product name: ETRO 3  
Synonyms: Automotive Engine Oil  
REACH Registration Number: 01-2119487077-29-XXXX

**Recommended use of the chemical and restrictions on use**

Recommended use: Mineral base 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

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>UVCB</td>
<td>Paraffinic Distillate, Light, Hydrotreated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffinic Distillate, Light, Hydrotreated</td>
<td>64742-55-8</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 sulphoxide extraction refractive index method’

SECTION 4: First aid measures

- **If inhaled**: If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a medical doctor. Move to fresh air.
- **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. Do NOT induce vomiting.
- **General advice**: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended. Symptoms of poisoning may appear several hours later.
- **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
### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- Use personal protective equipment.
- Ensure adequate ventilation.
- Prevent further leakage or spillage if safe to do so.
- Prevent product from entering drains.
- If the product contaminates rivers and lakes or drains inform respective authorities.

### METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- Keep in suitable, closed containers for disposal.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

### 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, Light, Hydrotreated</td>
<td>64742-55-8</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></td>
<td></td>
<td>Further information: Upper Respiratory Tract irritation, Not classifiable as a human carcinogen</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 / 10
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Clear and bright</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>0 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>150 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;= 170 °C Method: ASTM D92</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Self-ignition</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.81 - 0.97 g/cm³ (15 °C)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 2 - 6</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Viscosity, dynamic: No data available</td>
</tr>
<tr>
<td></td>
<td>Viscosity, kinematic: 9.77 mm²/s (40 °C)Viscosity index &gt;= 100 (Method: ASTM D2270)</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>Hazardous polymerisation does not occur.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>No dangerous reaction known under conditions of normal use.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Strong oxidizing agents</td>
</tr>
</tbody>
</table>
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, Light, 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, Light, Hydrotreated:
- Species: Rabbit
  Result: No skin irritation

Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

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

Germ cell mutagenicity

Components:
Paraffinic Distillate, Light, Hydrotreated:
- Germ cell mutagenicity: No data available

Carcinogenicity

Product:
- Carcinogenicity - Assessment: Not suspected to be carcinogenic.

Components:
Paraffinic Distillate, Light, Hydrotreated:
- Carcinogenicity - Assessment: Contains less than 3 % DMSO extract as measured by IP 346 ‘Determination of polycyclic aromatics in unused lubricating
Reproductive toxicity

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

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

STOT - single exposure

Components:
Paraffinic Distillate, Light, Hydrotreated:
Assessment : No specific organ toxicity following single exposure.

STOT - repeated exposure

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

Components:
Paraffinic Distillate, Light, 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.

Components:
Paraffinic Distillate, Light, Hydrotreated:
Statement on Aspiration Tox. : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Ecotoxicity

Components:
Paraffinic Distillate, Light, Hydrotreated:
Toxicity to fish : LC50 (Fish): > 100 mg/l
                      Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): > 100 mg/l
                      Exposure time: 48 h
Toxicity to algae : ErC50 (Algae): > 100 mg/l
                      Exposure time: 72 h
Toxicity to fish (Chronic toxicity) : NOEC (Fish): > 1 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, Light, Hydrotreated:*
- Biodegradability: Result: Inherently biodegradable.

Bioaccumulative potential

**Components:**
*Paraffinic Distillate, Light, Hydrotreated:*
- Partition coefficient: n-octanol/water: log Pow: 2 - 6

Mobility in soil

**Components:**
*Paraffinic Distillate, Light, Hydrotreated:*
- Mobility: Medium: Soil
  - Remarks: No data available

Other adverse effects

**Components:**
*Paraffinic Distillate, Light, 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**
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:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REACH</td>
<td>This mixture contains only ingredients which have been registered according to Regulation (EC) No. 1907/2006 (REACH).</td>
</tr>
<tr>
<td>DSL</td>
<td>All components of this product are on the Canadian DSL</td>
</tr>
<tr>
<td>AICS</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>NZIoC</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>ENCS</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>ISHL</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>KECl</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>PICCS</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>IECCS</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>TCSI</td>
<td>On the inventory, or in compliance with the inventory.</td>
</tr>
<tr>
<td>TSCA</td>
<td>On TSCA Inventory.</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

<table>
<thead>
<tr>
<th>Description</th>
<th>Date/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS preparation date</td>
<td>10.02.2015</td>
</tr>
<tr>
<td>Revision Date</td>
<td>18.11.2019</td>
</tr>
<tr>
<td>Sources of key data used to compile the Safety Data Sheet</td>
<td>CONCAWE - The oil companies' European association for Environment, Health and Safety in refining and distribution (2017)</td>
</tr>
</tbody>
</table>

Full text of other abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Q)SAR</td>
<td>(Quantitative) Structure Activity Relationship</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>ANTT</td>
<td>National Agency for Transport by Land of Brazil</td>
</tr>
</tbody>
</table>
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
OCSPP - 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
TCSI - Taiwan Chemical Substance Inventory
TDG - Transportation of Dangerous Goods
TSCA - Toxic Substances Control Act (United States)
Safety Data Sheet

ETRO 3
Version 0.0 Release Date: 18.11.2019

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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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PETRONAS aims to increase awareness of all the hazards associated with the storage, handling and use of its products. Thoroughly reviewing the accompanying Safety Data Sheets and disseminating the information to all dependent and interested parties is an essential part of any ‘Responsible Care’ programme.

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