1. Identification of the substance/preparation and of the company/undertaking

   1.1 Product identifier
   - Trade name: Vetus Two Stroke outboard engine oil
   - Article number: VTS1

   1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Sector of Use: SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
   - Product category: PC24 Lubricants, greases, release products
   - Process category: PROC2 Use in closed, continuous process with occasional controlled exposure
   - PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
   - PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
   - PROC20 Heat and pressure transfer fluids in dispersive, professional use but closed systems

   1.3 Details of the supplier of the safety data sheet
   - Manufacturer/Supplier: Vetus B.V.
     Fokkerstraat 571
     3125 BD Schiedam-Holland
     Tel.: +31 (0) 10 4377700

   Further information obtainable from:
   - 1.4 Emergency telephone number: Product safety department - vib@kroon-oil.nl
     +31 (0) 10 4377700 (9 AM to 4 PM, Monday to Friday)

2. Hazards identification

   2.1 Classification of the substance or mixture
   - Classification according to Regulation (EC) No 1272/2008
     The product is not classified according to the CLP regulation.

   - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
     Not applicable.

   Information concerning particular hazards for human and environment:
   - Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

   2.2 Label elements
   - Labelling according to EU guidelines: Observe the general safety regulations when handling chemicals.
     The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

   - Special labelling of certain preparations: Contains long chain alkyl polyamide. May produce an allergic reaction.
     Safety data sheet available for professional user on request.

   2.3 Other hazards
   - Results of PBT and vPvB assessment
     - PBT: Not applicable.
     - vPvB: Not applicable.

3. Composition/information on ingredients

   3.2 Mixtures
   - Description: Mixture of substances listed below with nonhazardous additions.
Trade name: Vetus Two Stroke outboard engine oil

4. First-aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Wear self-contained respiratory protective device.

Wear fully protective suit.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Do not allow to enter sewers/ surface or ground water.

6.2 Environmental precautions

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Remove from the water surface (e.g. skim or suck off).

6.3 Methods and material for containment and cleaning up

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

6.4 Reference to other sections

7. Handling and storage

7.1 Precautions for safe handling

No special measures required.

Avoid the formation of oil haze.

Information about fire - and explosion protection

No special measures required.
7.2 Conditions for safe storage, including any incompatibilities

- Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
  - Specific end use(s) No further relevant information available.

8. Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- Control parameters
  - Ingredients with limit values that require monitoring at the workplace: Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.
  - Additional information: The lists valid during the making were used as basis.

- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work.
  - Respiratory protection: Not required.
  - Protection of hands: Wear gloves for the protection against chemicals according to EN 374.

  - Material of gloves
    - Nitrile rubber, NBR
    - PVC gloves
    - Neoprene gloves

  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  - For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.
  - Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.
  - The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Goggles recommended during refilling
- Body protection: Protective work clothing

9. Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Form: Liquid
    - Colour: Brown
    - Odour: Characteristic

- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: > 180 °C
  - Drip point:
    - Pour point: -30 °C (ASTM D97)
  - Flash point: > 110 °C
38.0.2

- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 210 °C
- Self-igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: 0.5 Vol %
  - Upper: 7.0 Vol %
  - Vapour pressure at 20 °C: 0.2 hPa
- Density at 20 °C: 0.869 g/cm³
- Solubility in / Miscibility with water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - 40 °C 35.9 mm²/s (ASTM D445)
- Solvent content:
  - Organic solvents: 0.0 %
- 9.2 Other information
  - No further relevant information available.

10. Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.
- 10.3 Possibility of hazardous reactions
  - Reacts with strong oxidizing agents.
- 10.4 Conditions to avoid
  - No further relevant information available.
- 10.5 Incompatible materials:
  - No further relevant information available.
- 10.6 Hazardous decomposition products:
  - No dangerous decomposition products known.

11. Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values relevant for classification:
    - 64742-47-8 Distillates (petroleum), hydrotreated light
      - Oral LD₅₀ >5000 mg/kg (rat)
      - Dermal LD₅₀ >2000 mg/kg (rabbit)
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
- Sensitization:
  - No sensitizing effects known.
- Additional toxicological information:
  - The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
  - When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Sensitisation
  - For skin sensitisation: Experimental data has shown that the concentration of potentially sensitising components present in this product does not induce skin sensitisation. May cause an allergic skin reaction in sensitive individuals.
  - For respiratory sensitisation: Not expected to be a sensitizer.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
12. Ecological information

12.1 Toxicity

Aquatic toxicity:

- 64742-47-8 Distillates (petroleum), hydrotreated light
  LC50 (96 h) >45 mg/l (fish)

12.2 Persistence and degradability

- Other information: The product is difficulty biodegradable.
- No further relevant information available.

12.3 Bioaccumulative potential

- Other information: No further relevant information available.

12.4 Mobility in soil

- Ecotoxicological effects:
  - Remark: This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

12.5 Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects

- No further relevant information available.

13. Disposal considerations

13.1 Waste treatment methods

- Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.

13.2 Transport by sea

- Void

13.3 Transport by air

- Void

13.4 Transportation of branded bulk containers

- Void

13.5 Recommendations for special transport equipment

- Void

13.6 Special safety precautions for users

- No

13.7 Advice on disposal

- Disposal must be made according to official regulations.

14. Transport information

14.1 UN-Number

- ADR, ADN, IMDG, IATA: Void

14.2 UN proper shipping name

- ADR, ADN, IMDG, IATA: Void

14.3 Transport hazard class(es)

- ADR, ADN, IMDG, IATA: Void
  - Class: Void

14.4 Packing group

- ADR, IMDG, IATA: Void

14.5 Environmental hazards:

- Marine pollutant: No

14.6 Special precautions for user

- Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

- Not applicable.

- UN "Model Regulation": -

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- National regulations:
  - Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes and skin.</td>
</tr>
<tr>
<td>R43</td>
<td>May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td>R51/53</td>
<td>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td>R65</td>
<td>Harmful: may cause lung damage if swallowed.</td>
</tr>
<tr>
<td>R66</td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
<tr>
<td>R67</td>
<td>Vapours may cause drowsiness and dizziness.</td>
</tr>
</tbody>
</table>

· Department issuing MSDS:

Product safety department.

· Contact:

Product safety department.

· Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>RID</td>
<td>Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<tr>
<td>ADR</td>
<td>Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System of Classification and Labelling of Chemicals</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society)</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
</tbody>
</table>

· Sources

67/548/EEC
99/45/EEC
EC/453-2010