1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation

Bel-Ray 2T Mineral Engine Oil

Product code

99010

MSDS Number

6401

Version No.

1,0

Revision Date

12-June-2010

Manufacturer

Bel-Ray Company, Inc.
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+32 (0) 2 201 18 87
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Europe Emergency: 112

2. HAZARDS IDENTIFICATION

This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments

Classification

R52-53

Physical hazards

Not classified as a physical hazard.

Health hazards

Prolonged exposure may cause chronic effects.

Environmental hazards

Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Specific hazards

No hazards resulting from the material as supplied.

Main symptoms

Irritation of nose and throat. Irritation of eyes and mucous membranes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>CAS-No.</th>
<th>%</th>
<th>EC-No. / REACH Registration No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td></td>
<td>&gt;= 80</td>
<td></td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>Stoddard solvent</td>
<td>Xn;R65, R67</td>
<td>8052-41-3</td>
<td>2.5 - 10</td>
<td>232-489-3</td>
<td>#</td>
</tr>
<tr>
<td>1,2,4-Trimethyl benzene</td>
<td>R10, Xn;R20, Xi;R36/37/38, N;R51-53</td>
<td>95-63-6</td>
<td>0.1 - 1</td>
<td>247-099-9</td>
<td></td>
</tr>
<tr>
<td>DODECYL PHENOL (BRANCHED)</td>
<td>Xi;R38, N;R50/53</td>
<td>121158-58-5</td>
<td>0.1 - 1</td>
<td>310-154-3</td>
<td></td>
</tr>
</tbody>
</table>

#: This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

The full text for all R-phrases is displayed in Section 16.

4. FIRST-AID MEASURES

Inhalation

Move to fresh air. Get medical attention, if needed.

Skin contact

Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.
**Ingestion**

Rinse mouth. Do not induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. If ingestion of a large amount does occur, call a poison control centre immediately. Never give liquid to an unconscious person.

**General advice**

Call a physician if symptoms develop or persist.

**5. FIRE-FIGHTING MEASURES**

**Fire fighting equipment/instructions**

In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

**Suitable extinguishing media**


**Specific methods**

Cool containers exposed to flames with water until well after the fire is out.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

In case of spills, beware of slippery floors and surfaces.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

**Containment procedures**

Use water spray to reduce vapours or divert vapour cloud drift.

**Methods for cleaning up**

Dike far ahead of spill for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Following product recovery, flush area with water.

Never return spills in original containers for re-use.

**7. HANDLING AND STORAGE**

**Handling**

Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling.

**Storage**

Room temperature - normal conditions. Keep out of the reach of children.

**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**Exposure limit values**

<table>
<thead>
<tr>
<th>Belgium Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>STEL</td>
<td>10.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td>Stoddard solvent (8052-41-3)</td>
<td>TWA</td>
<td>5.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>533.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100.0000 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Denmark Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>TLV</td>
<td>1.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td>Stoddard solvent (8052-41-3)</td>
<td>TLV</td>
<td>25.0000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>145.0000 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Italy Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>STEL</td>
<td>10.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td>Stoddard solvent (8052-41-3)</td>
<td>TWA</td>
<td>5.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100.0000 ppm</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Netherlands Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>TWA</td>
<td>5.0000 mg/m3</td>
<td>Mist.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spain Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>STEL</td>
<td>10.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td>Stoddard solvent (8052-41-3)</td>
<td>TWA</td>
<td>5.0000 mg/m3</td>
<td>Mist.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sweden Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4</td>
<td>STEL</td>
<td>3.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td>Stoddard solvent (8052-41-3)</td>
<td>TWA</td>
<td>1.0000 mg/m3</td>
<td>Mist.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>300.0000 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
<td>Form</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
<td>-----------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50.0000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.0000 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>150.0000 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Exposure controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Occupational exposure controls**

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hand protection**

Not normally needed.

**Eye protection**

Not normally needed.

**Skin and body protection**

No special protective equipment required.

**General**

Applicable for industrial settings only: Use personal protective equipment as required. Keep working clothes separately.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practices.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Oily.

**Physical state**

Liquid.

**Form**

Liquid.

**Colour**

Dark blue

**Odour**

Petroleum

**Odour threshold**

Not available.

**pH**

Not available.

**Boiling point**

159 °C (318,2 °F) estimated

**Flash point**

73 °C (163,4 °F) Pensky-Martens Closed Cup

**Flammability limits in air, upper, % by volume**

Not available.

**Flammability limits in air, lower, % by volume**

Not available.

**Vapour pressure**

2,8734 hPa estimated

**Density**

876,3 kg/m³

**Relative density**

Not available.

**Solubility (water)**

Negligible

**Solubility (other)**

Oil

**Solvents**

Not available.

**Partition coefficient (n-octanol/ water)**

Not available.

**Viscosity**

58,57 cSt @ 40 °C (104 °F)

**Vapour density**

Not available.

**Evaporation rate**

Not available.

**Melting point/ Freezing point**

-70 °C (-94 °F) estimated / -70 °C (-94 °F) estimated

**Auto-ignition temperature**

260 °C (500 °F) estimated

**VOC**

8 %

**Percent volatile**

0,036 % estimated

### 10. STABILITY AND REACTIVITY

**Hazardous decomposition products**

Irritants. Nitrogen oxides (NOx). At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

**Stability**

Material is stable under normal conditions.
11. TOXICOLOGICAL INFORMATION

Toxicological data

<table>
<thead>
<tr>
<th>Product</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bel-Ray 2T Mineral Engine Oil (Mixture)</td>
<td>Acute Dermal LD50 Rabbit: 2170 mg/kg estimated</td>
</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dermal LD50 Rabbit: &gt; 3160 mg/kg</td>
</tr>
<tr>
<td>Acute Inhalation LC50 Rat: &gt; 2000 mg/l 48.00 Hours</td>
</tr>
<tr>
<td>Acute Oral LD50 Rat: 8970 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Routes of exposure
- Inhalation. Not applicable.

Chronic toxicity
- Prolonged inhalation may be harmful.

Carcinogenicity
- Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
- Stoddard solvent (CAS 8052-41-3) 3 Not classifiable as to carcinogenicity to humans.

Mutagenicity
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductivity
- Contains no ingredient listed as toxic to reproduction

Epidemiology
- No epidemiological data is available for this product.

Local effects
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Contact with eyes may cause irritation. May cause skin irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

<table>
<thead>
<tr>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia: 9241 mg/l 48.00 hours estimated</td>
</tr>
<tr>
<td>LC50 Fish: 120 mg/l 96.00 hours estimated</td>
</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fathead minnow (Pimephales promelas): 7.19 - 8.28 mg/l 96.00 hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Ecotoxicity
- Contains a substance which causes risk of hazardous effects to the environment.

Environmental Effects
- An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

Disposal instructions
- Dispose in accordance with all applicable regulations.

Waste from residues / unused products
- Dispose of in accordance with local regulations.

Contaminated packaging
- Offer rinsed packaging material to local recycling facilities.

14. TRANSPORT INFORMATION

ADR
- Not regulated as dangerous goods.

IATA
- Not regulated as dangerous goods.

IMDG
- Not regulated as dangerous goods.

15. REGULATORY INFORMATION

Labeling
- Contains Interchangeable base oils, one or more: 64741-88-4, 64742-52-5, 64742-01-4, Stoddard solvent
- R-phrase(s) R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other regulations
- This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product does not need to be labelled in accordance with EC directives or respective national laws.
16. OTHER INFORMATION

**Wording of the R-phrases in sections 2 and 3**

- R10 Flammable.
- R20 Harmful by inhalation.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R38 Irritating to skin.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51 Toxic to aquatic organisms.
- R52 Harmful to aquatic organisms.
- R53 May cause long-term adverse effects in the aquatic environment.
- R62 Possible risk of impaired fertility.
- R65 Harmful: may cause lung damage if swallowed.
- R67 Vapours may cause drowsiness and dizziness.

**Inventory status**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)*

**Disclaimer**

Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Issue date**

12-June-2010