1. Chemical product and company identification

Product name: Castrol Enduron MT 10W-40
MSDS #: 456757
Code: 456757-BE02
Product use: Automotive engine crankcase lubricant. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Manufacturer: Castrol Marine Americas
P.O. Box 4518
Houston, Texas 77210-4518
USA
Supplier: Castrol Marine Americas
P.O. Box 4518
Houston, Texas 77210-4518
USA
EMERGENCY HEALTH INFORMATION: 1 (800) 447-8735
Outside the US: +1 703-527-3887 (CHEMTREC)
EMERGENCY SPILL INFORMATION: 1 (613) 996-6666 CANUTEC (Canada)
OTHER PRODUCT INFORMATION: 1 (866) 4 BP - MSDS (866-427-6737 Toll Free - North America)
email: bpcares@bp.com

2. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS #</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc alkyl dithiophosphate</td>
<td>68649-42-3</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>64742-54-7</td>
<td>65 - 70</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>64742-65-0</td>
<td>15 - 20</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>64741-88-4</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

3. Hazards identification

Physical state: Liquid.
Color: Amber.
Emergency overview: WARNING!
CAUSES EYE IRRITATION.
CAUSES SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

Routes of entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential health effects:

Eyes: Causes eye irritation.
4. First aid measures

Eye contact
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin contact
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear. If large quantities of this material are swallowed, call a physician immediately.

5. Fire-fighting measures

Flammability of the product
May be combustible at high temperature.

Flash point
232 °C (Open cup) Cleveland.

Products of combustion
These products are carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), nitrogen oxides (NO, NO₂ etc.), sulfur oxides (SO₂, SO₃ etc.). Some metallic oxides.

Unusual fire/explosion hazards
This material is not explosive as defined by established regulatory criteria.

Fire-fighting media and instructions
In case of fire, use water fog, foam, dry chemicals, or carbon dioxide. Do not use water jet.

Protective clothing (fire)
Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

Personal precautions
Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").

Environmental precautions and clean-up methods
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. See Section 13 for Waste Disposal Information.

Personal protection in case of a large spill
7. Handling and storage

Handling
Avoid contact with skin and clothing. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.

Storage
Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

Not suitable
Prolonged exposure to elevated temperature.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Occupational exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc alkyl dithiophosphate</td>
<td>ACGIH (United States).</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>ACGIH (United States).</td>
</tr>
<tr>
<td>Base oil - highly refined</td>
<td>STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral</td>
</tr>
</tbody>
</table>

Control Measures
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protection

Eyes
Avoid contact with eyes. Chemical splash goggles.

Skin and body
Avoid contact with skin and clothing. Wear suitable protective clothing.

Respiratory
Use only with adequate ventilation. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.

Hands
Wear gloves that cannot be penetrated by chemicals or oil. Recommended: nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Consult your supervisor or S.O.P. for special handling directions

Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state
Liquid.

pH
Not available.

Odor
Oily

Odor threshold
Not available.
10. Stability and reactivity

Stability and reactivity  The product is stable.
Conditions to avoid  Keep away from heat, sparks and flame.
Incompatibility with various substances  Reactive or incompatible with the following materials: oxidizing materials and acids.
Hazardous decomposition products  Products of combustion: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), nitrogen oxides (NO, NO₂ etc.), sulfur oxides (SO₂, SO₃ etc.). Some metallic oxides. Hydrogen Sulfide (H₂S).
Hazardous polymerization  Will not occur.

11. Toxicological information

Acute toxicity  USED ENGINE OILS
Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.

Chronic toxicity  

Carcinogenic effects  No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

Mutagenic effects  No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

Teratogenic effects  No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Synergistic Effects  No known synergistic effects.
12. Ecological information

Ecotoxicity
No testing has been performed by the manufacturer.

<table>
<thead>
<tr>
<th>Persistence/degradability</th>
<th>Inherently biodegradable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Spillages may penetrate the soil causing ground water contamination.</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>This product is not expected to bioaccumulate through food chains in the environment.</td>
</tr>
<tr>
<td>Other ecological information</td>
<td>Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.</td>
</tr>
</tbody>
</table>

13. Disposal considerations

Waste information
Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

Consult your local or regional authorities.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)

15. Regulatory information

U.S. Federal regulations
US INVENTORY (TSCA): In compliance.

WHMIS (Canada)
Class D-2B: Material causing other toxic effects (TOXIC).

If listed, this product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations for those regulated products.

<table>
<thead>
<tr>
<th>Inventories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AUSTRALIAN INVENTORY (AICS)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>CANADA INVENTORY (DSL)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>CHINA INVENTORY (IECS)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>EC INVENTORY (EINECS/ELINCS)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>JAPAN INVENTORY (ENCS)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>KOREA INVENTORY (ECL)</td>
<td>In compliance.</td>
</tr>
<tr>
<td>PHILIPPINE INVENTORY (PICCS)</td>
<td>In compliance.</td>
</tr>
</tbody>
</table>

16. Other information

Label requirements
WARNING!

CAUSES EYE IRRITATION.
CAUSES SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

History
Date of issue 11/21/2006.
Date of previous issue No Previous Validation.
Prepared by Product Stewardship
Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.