Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 31/03/2009 Revision date: 01/02/2013 Supersedes: 19/01/2012 Version: 4.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name. : 4 STROKE 10w40 SYNTHETIC

Product code : 5102
Product group : Blend

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use

Industrial/Professional use spec. : Non-dispersive use

Used in closed systems

Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BO Motor oil Rootven 10 5531 MB Bladel Holland T +31(0) 497-384847 info@bomotoroil.com

1.4. Emergency telephone number

Emergency number: 0031 (0) 30 2748 888

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labeling according to Directive 67/548/EEC or 1999/45/EC

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
|--|--|---------|---|
| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | (EC no) 270-608-0 | 0,1 - 1 | Xi; R41 Xi; R38 N; R51/53 |
| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | (EC no) 298-577-9 (REACH-no) 01-2119543726-33 | 0,1 - 1 | Xi; R41 Xi; R38 N; R51/53 |
| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | (EC no) 270-608-0 | 0,1 - 1 | Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 2, H411 |

01/02/2013 EN (English) 1/6

Safety Data Sheet

according to Regulation (EC) No. 453/2010

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--|---------|---|
| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | (EC no) 298-577-9 (REACH-no) 01-2119543726-33 | 0,1 - 1 | Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411 |

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Not expected to require first aid measures. First-aid measures after skin contact : Wash skin with mild soap and water.

First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal

use.

Symptoms/injuries after skin contact : Not expected to present a significant skin hazard under anticipated conditions of normal use.

Symptoms/injuries after eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal

use

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal

use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog. Foam. Powder. Dry chemical product.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : None under normal conditions.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire. Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Impound and recover large spill by mixing it with inert granular solids.

Methods for cleaning up : Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.

Other information : Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually

required.

Handling temperature : < 40 °C

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and

when leaving work.

01/02/2013 EN (English) 2/6

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Conditions for safe storage, including any incompatibilities

Storage temperature : < 40 °C

Storage area : Store in dry, cool, well-ventilated area.

Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

: 5 mg/m3 for oil mists (TWA, 8h-workday) recommended, based upon the ACGIH TLV (Analysis according to US NIOSH Method 5026, NIOSH Manual of Analytical Methods, 3rd Edition).

Exposure controls

: Safety glasses. Gloves. Personal protective equipment





Hand protection : Wear suitable gloves resistant to chemical penetration.

Skin and body protection : No special clothing/skin protection equipment is recommended under normal conditions of use. Respiratory protection

No special respiratory protection equipment is recommended under normal conditions of use

with adequate ventilation.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state : Liquid : Oily liquid. Appearance Colour Yellow-brown. Odour Characteristic. Odour threshold : No data available рΗ No data available Relative evaporation rate (butylacetate=1) No data available Melting point No data available Freezing point : No data available No data available Boiling point Flash point > 220 °C @ ASTM D92 Self ignition temperature : No data available : No data available

Decomposition temperature Flammability (solid, gas) : No data available Vapour pressure No data available Relative vapour density at 20 °C : No data available Relative density : No data available <tx:_VLL_TL_897> 876 kg/m3 @15°C

Solubility Slightly soluble, the product remains on the water surface.

Log Pow No data available Log Kow : No data available Viscosity, kinematic 100 mm²/s @ 40°C Viscosity, dynamic No data available Explosive properties No data available Oxidising properties : No data available : No data available **Explosive limits**

Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

Chemical stability

Stable under normal conditions.

01/02/2013 EN (English) 3/6

Safety Data Sheet

according to Regulation (EC) No. 453/2010

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | |
|--|-------------|
| LD50 oral rat | 3600 mg/kg |
| LD50 dermal rat | 20000 mg/kg |

| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | |
|--|-----------------------|
| LD50 oral rat | 2600 mg/kg |
| LD50 dermal rat | > 3160 mg/kg OECD 402 |
| Irritation | : Not classified |

Corrosivity : Not classified
Sensitisation : Not classified
Repeated dose toxicity : Not classified
Carcinogenicity : Not classified
Mutagenicity : Not classified
Toxicity for reproduction : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | |
|--|---|
| LC50 fishes 1 | 4,5 ml/l OECD 203, (Cyprinodon variegatus, 96h) |
| EC50 Daphnia 1 | 23 mg/l OECD 202, (Daphnia magna, 72h) |
| EC50 other aquatic organisms 1 | 21 ml/l |

| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | |
|--|---|
| LC50 fishes 1 | 4,5 mg/l OECD 203 (Oncorhynchys mykiss) 96h |
| EC50 Daphnia 1 | 5,4 mg/l OECD 202 (Daphnia magna) 48h |
| EC50 other aquatic organisms 1 | 2,1 mg/l OECD 201 (Selenastrum capricornutum) 48h |

12.2. Persistence and degradability

| 4 STROKE 10w40 SYNTHETIC | |
|-------------------------------|--|
| Persistence and degradability | Not soluble in water, so only minimally biodegradable. |

| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | |
|--|-----------------|
| Biodegradation | 1,5 % OECD 301B |

| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | |
|--|---------------------|
| Biodegradation | 1.5 % OECD 301B 28d |

12.3. Bioaccumulative potential

| Phosphorodithioic acid, mixed 0,0-bis (1,3-dimethylbutyl and iso-Pr)esters, zi | | |
|--|------|--|
| Log Pow | 0,69 | |

| Zinc bis[O-(-6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate) | |
|--|-----------|
| Log Pow | 0,9 @23°C |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

01/02/2013 EN (English) 4/6

Safety Data Sheet

according to Regulation (EC) No. 453/2010

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Additional information

: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

No dangerous good in sense of transport regulations.

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information

: No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Other information

: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of R-, H- and EUH-phrases::

| Aquatic Chronic 2 | Hazardous to the aquatic environment - Chronic Hazard Category 2 |
|-------------------|--|
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Skin Irrit. 2 | skin corrosion/irritation Category 2 |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H411 | Toxic to aquatic life with long lasting effects |
| R38 | Irritating to skin. |
| R41 | Risk of serious damage to eyes. |

01/02/2013 EN (English) 5/6

Safety Data Sheet according to Regulation (EC) No. 453/2010

| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
|--------|---|
| N | Dangerous for the environment |
| Xi | Irritant |

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

01/02/2013 EN (English) 6/6