

SAFETY DATA SHEET

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

Product name Valvemaster Plus
SDS # 1770-UK
Product Use Additive package
Supplier Castrol (UK) Ltd
Wakefield House
Pipers Way
Swindon
Wiltshire SN3 1RE

EMERGENCY TELEPHONE NUMBER **+44 (0)1793 512712**

2. Composition/information on ingredients

Highly refined mineral oil (IP 346 DMSO extract < 3%)
Proprietary performance additives.

| Chemical name | CAS no. | % | EINECS / ELINCS. | Classification |
|---|----------------|----------|------------------|-----------------------------|
| Solvent naphtha (petroleum), heavy arom. | 64742-94-5 | 50 - 100 | 265-198-5 | Xn; R65 N; R51/53 |
| Amine salt of mixed alkyl acid phosphates | Not available. | 50 - 100 | | Xi; R38 |
| Kerosine (petroleum) | 8008-20-6 | 5-10 | 232-366-4 | R10 Xn; R65 N; R51/53 |
| DICYCLOPENTADIENYL IRON | 102-54-5 | 1 - 5 | 203-039-3 | Xn; R22 |

See Section 16 for the full text of the R Phrases declared above

Occupational Exposure Limit(s), if available, are listed in Section 8

3. Hazards identification

This preparation is classified as dangerous according to Directive 1999/45/EC as amended and adapted.

| | |
|----------------------------------|--|
| Physical/chemical Hazards | Not classified as dangerous. |
| Human health hazards | Irritating to skin. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. |
| Environmental hazards | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |
| Effects and symptoms | |
| Eyes | No significant health hazards identified. |
| Skin | Causes skin irritation. |
| Inhalation | No significant health hazards identified. |
| Ingestion | Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs. |

4. First-aid measures

| | |
|---------------------------|--|
| Eye Contact | In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs. |
| Skin contact | In case of contact, immediately flush skin copiously with water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention immediately. |
| Inhalation | If inhaled, remove to fresh air. Get medical attention if symptoms appear. |
| Ingestion | If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed- can enter lungs and cause damage. Obtain medical attention. |
| Notes to physician | Treatment should in general be symptomatic and directed to relieving any effects. |

5. Fire-fighting measures

Extinguishing Media

| | |
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| Suitable | In case of fire, use water fog, foam, dry chemical or CO2 extinguisher or spray. |
| Not Suitable | Do not use water jet. |

Hazardous decomposition products

These products are carbon oxides (CO, CO2). Some metallic oxides.

Unusual fire/explosion Hazards

This material is not explosive as defined by established regulatory criteria.

Special fire-fighting procedures

None identified.

6. Accidental release measures

Personal Precautions

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).

Environmental precautions and cleanup 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. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.

Personal Protection in Case of a Large Spill

Splash goggles. Full suit. Boots. Gloves.

7. Handling and storage

Handling

Aspiration hazard if swallowed- can enter lungs and cause damage. Do not ingest. If ingested do not induce vomiting. Avoid contact with skin and clothing. Avoid contact of spilled material and runoff with soil and surface waterways. Wash thoroughly after handling.

Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls/personal protection

Ingredient Name

DICYCLOPENTADIENYL IRON

Occupational Exposure Limits

EH40-OES (United Kingdom (UK), 2001). Notes: OES

STEL: 20 mg/m³

TWA: 10 mg/m³

Control Measures

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protective equipment

Respiratory system

None required; however, use of adequate ventilation is good industrial practice.

Skin and body

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

Hands

Wear suitable gloves.

Eyes

Safety glasses with side shields.

9. Physical and chemical properties

Flash point

65 °C (CLOSED CUP)

Explosion Limits

LOWER: 1 %

UPPER: 7 %

Colour

Amber.

Odour

Aromatic.

Odour threshold

Not available.

Physical state

Liquid.

Boiling point / range

>150 °C

Density

0.93 g/cm³ at 20 °C

Solubility

Insoluble in cold water.

Viscosity

kinematic at 40°C: 5 cSt

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(ENGLISH)

10. Stability and reactivity

| | |
|---|---------------------------------|
| Incompatibility with Various Substances | Reactive with oxidizing agents. |
| Hazardous Polymerization | Will not occur. |

11. Toxicological information

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|----------------------|--|
| Acute toxicity | Unlikely to cause more than transient stinging or redness if accidental eye contact occurs. Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs. |
| Chronic toxicity | |
| Carcinogenic effects | No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European Commission (EC). |

12. Ecological information





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|-----------------------|---|
| Environmental hazards | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |
|-----------------------|---|

13. Disposal considerations

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|--|--|
| Disposal Consideration / Waste information | Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met. |
| Hazardous Waste | The classification of the product may meet the criteria for a hazardous waste |

14. Transport information

International transport regulations

| Regulatory Information | UN number | Proper shipping name | Class | Packing group | Label | Additional Information |
|------------------------|-----------|--|-------|---------------|--|--|
| ADR/RID Classification | 3082 | Environmentally hazardous substance, liquid, n.o.s. solution | 9 | - |  | CEFIC Tremcard Number: Not available. Hazchem Code Not available. |
| ADN Classification | 3082 | Environmentally hazardous substance, liquid, n.o.s. | 9 | III |  | - |
| IMDG Classification | 3082 | Environmentally hazardous substance, liquid, n.o.s. solution | 9 | III |  | Marine pollutant IMDG Class: Marine Pollutant. (Pollutant.) |
| IATA Classification | 3082 | Environmentally hazardous substance, liquid, n.o.s. solution | 9 | III |  | - |

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15. Regulatory information

Label Requirements

Hazard symbol(s)



Indication of Danger

Harmful

Dangerous for the environment.

Risk Phrases

R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S51- Use only in well-ventilated areas.
S57- Use appropriate containment to avoid environmental contamination.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

Restrictions to product use

Classification and labeling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.
- Industrial applications.

Other Regulations

Inventories

AUSTRALIAN INVENTORY (AICS): Not determined.
CANADA INVENTORY (DSL): Not determined.
CHINA INVENTORY (IECS): Not determined.
EC INVENTORY (EINECS): Not determined.
JAPAN INVENTORY (ENCS): Not determined.
KOREA INVENTORY (ECL): Not determined.
PHILIPPINE INVENTORY (PICCS): Not determined.
US INVENTORY (TSCA): Not determined.

16. Other information

Full text of R-phrases appearing in section 2

R10- Flammable.
R22- Harmful if swallowed.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HISTORY

Date of issue

12/07/2002.

Date of previous issue

No Previous Validation.

Prepared by

Product Stewardship Group

Notice to Reader

The data and advice given apply when the product is sold for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. You should not use the product other than for the stated application or applications without seeking advice from us.

If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken.

Further copies of this Safety Data Sheet may be obtained from Castrol International.

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