



Engine Flush

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 19/08/2014

Revision date: 19/08/2014

version: 1.1

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

1.1. Product identifier

Product form : Mixture
 Product name : Engine Flush
 Product code : AD14000

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
 Use of the substance/mixture : Automotive care products
 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

MPM International Oil Company
 Cyclotronweg 1
 2629 HN Delft - Nederland
 T +31 (0)15 2514030 - F +31 (0)15 2514031
info@mpmoil.nl - www.mpmoil.nl

1.4. Emergency telephone number

Emergency number : +31 (0)15 2514030 (08.00 - 17.00)

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH208 - Contains Calcium long chain alkaryl sulphonate(90194-27-7). May produce an allergic reaction
 EUH210 - Safety data sheet available on request

2.3. Other hazards

Other hazards not contributing to the classification : Frequent or prolonged contacts may defat and dry the skin, leading to discomfort and dermatitis.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Comments (on top of composition) : Highly refined mineral oil, contains <3% (w / w) DMSO extract, according to IP346

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains a relatively large proportion of saturated hydrocarbons.]	(CAS No) 64742-54-7 (EC no) 265-157-1 (EC index no) 649-467-00-8 (REACH-no) 01-2119484627-xx	1 - 5	Asp. Tox. 1, H304
Calcium branched chain alkyl phenate sulphide	(CAS No) 90480-91-4 (EC no) 291-829-9	0,5 - 1	Aquatic Chronic 4, H413
Zinc Alkyldithiophosphate	(CAS No) 68649-42-3 (EC no) 272-028-3 (REACH-no) 01-2119493635-27	0,1 - 0,5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Alkarylamine		0,1 - 0,5	Aquatic Chronic 4, H413
Calcium long chain alkaryl sulphonate	(CAS No) 90194-27-7 (EC no) 290-636-7 (EC index no) 271-877-7	0,1 - 0,5	Skin Sens. 1, H317 Aquatic Chronic 4, H413
Branched alkylphenol and Calcium branched alkylphenol	(CAS No) -?-	0,05 - 0,1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1A, H360F Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Alkarylpolyether	(EC no) POLYMER	0,05 - 0,1	Aquatic Chronic 3, H412
Polyolefin polyamine succinimide, molybdenum complex		0,05 - 0,1	Aquatic Chronic 4, H413
1,2-Ethanediol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01-2119456816-28	0,01 - 0,05	Acute Tox. 4 (Oral), H302

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Zinc Alkyldithiophosphate	(CAS No) 68649-42-3 (EC no) 272-028-3 (REACH-no) 01-2119493635-27	(5 =<C < 10) Eye Irrit. 2, H319 (C >= 10) Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General	: If you feel unwell, seek medical advice (show the label where possible).
After inhalation	: Call a POISON CENTER or doctor/physician if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
After skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.
After eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
After ingestion	: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
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4.3. Indication of any immediate medical attention and special treatment needed

Entering the lungs by ingestion or vomiting may cause severe lung damage. Subsequent observance for pneumonia and lung oedema.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: hazy water, powder, foam and CO ₂ .
Unsuitable extinguishing media	: High power water jet.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Exercise caution when fighting any chemical fire. Use water spray/stream to protect personnel and to cool endangered containers.

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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

Do not release in groundwater, surfacewater or sewerage. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Prevent spreading over great surfaces (e.g. by damming or installing oil booms).

Methods for cleaning up : Clean with the help of detergents. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Other information : Can be slippery on hard, smooth walking area.

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 : When using do not eat, drink or smoke. Wash hands before breaks and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : < 40 °C

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified, [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100 °F (19cSt at 40 °C). It contains a relatively large proportion of saturated hydrocarbons.] (64742-54-7)

EU	IOELV TWA (mg/m ³)	5
EU	IOELV STEL (mg/m ³)	10 mg/m ³
1,2-Ethanediol (107-21-1)		
EU	Local name	Ethylene glycol
EU	IOELV TWA (mg/m ³)	52 mg/m ³
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m ³)	104 mg/m ³
EU	IOELV STEL (ppm)	40 ppm
EU	Notes	Skin

Additional information : Based on ACGIH TLV, a concentration of 5 mg/m³ oilspray (TWA, 8 hour workday) is recommended.

8.2. Exposure controls

Personal protective equipment : Safety glasses. Gloves.

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Materials for protective clothing	: Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Suitable material: nitrile rubber
Hand protection	: Wear suitable gloves resistant to chemical penetration
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation



Other information : The usual precautions for handling chemicals should be observed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -24 °C
Boiling point	: No data available
Flash point	: 0 200 °C ASTM D 92
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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
Density	: 874 g/l @ 15°C
Solubility	: Slightly soluble, the product remains on the water surface.
Log Pow	: No data available
Viscosity, kinematic	: 30 mm ² /s @ 40°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizing agent. Acids and bases.

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10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
This product is formulated with highly refined mineral oils which are considered under IARC as not carcinogenic. It was the IP 346 test showed that all oils in this product contains less than 3% extractable substances

Zinc Alkyldithiophosphate (68649-42-3)	
LD50 oral rat	2230 mg/kg
LD50 dermal rat	> 2000 mg/kg

1,2-Ethanediol (107-21-1)	
LD50 oral rat	7712 mg/kg
LD50 dermal rat	> 3500 mg/kg Mouse
LD50 dermal rabbit	10600 mg/kg
LC50 inhalation rat (mg/l)	> 2,5 mg/l/6Hrs

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
This product is formulated with highly refined mineral oils which are considered under IARC as not carcinogenic. It was the IP 346 test showed that all oils in this product contains less than 3% extractable substances

1,2-Ethanediol (107-21-1)	
NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1500 mg/kg bodyweight

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified
Specific target organ toxicity (repeated exposure) : Not classified

1,2-Ethanediol (107-21-1)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day

Aspiration hazard : Not classified

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Viscosity, kinematic	30 mm ² /s @ 40°C

SECTION 12: Ecological information

12.1. Toxicity

Zinc Alkyldithiophosphate (68649-42-3)	
LC50 fish 1	1 - 5 mg/l @ 96h
EC50 Daphnia 1	1 - 1,5 @ 48 h
EC50 other aquatic organisms 2	1 - 5 mg/l Algae @ 96 h
NOEC (acute)	1 mg/l @ 96 h (Fish)
NOEC chronic algae	1 mg/l @ 96 h

Calcium branched chain alkyl phenate sulphide (90480-91-4)	
LC50 fish 1	No data available

Calcium long chain alkaryl sulphonate (90194-27-7)	
LC50 fish 1	No data available

1,2-Ethanediol (107-21-1)	
LC50 fish 1	72860 mg/l 96 hrs / Pimephales promelas
EC50 Daphnia 1	> 100 mg/l 48 hrs
EC50 other aquatic organisms 2	> 9600 mg/l 96 hrs / Selenastrum capricornutum
NOEC (chronic)	15380 mg/l Fish Early Life Stage / Pimephales promelas / 7 days

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12.2. Persistence and degradability

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Persistence and degradability	Not soluble in water, so only minimally biodegradable.
Zinc Alkyldithiophosphate (68649-42-3)	
Persistence and degradability	No data available.
Calcium branched chain alkyl phenate sulphide (90480-91-4)	
Persistence and degradability	No data available.
Calcium long chain alkaryl sulphonate (90194-27-7)	
Persistence and degradability	Not soluble in water, so only minimally biodegradable.
1,2-Ethanediol (107-21-1)	
Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

Zinc Alkyldithiophosphate (68649-42-3)	
Bioaccumulative potential	not determined.
Calcium branched chain alkyl phenate sulphide (90480-91-4)	
Bioaccumulative potential	No additional information available.
Calcium long chain alkaryl sulphonate (90194-27-7)	
Log Kow	> 3
Bioaccumulative potential	No additional information available.
1,2-Ethanediol (107-21-1)	
Log Pow	-1.36
Bioaccumulative potential	There is no bioaccumulation.

12.4. Mobility in soil

Engine Flush	
Soil	Ecological problems are not known or expected under normal use.
Zinc Alkyldithiophosphate (68649-42-3)	
Soil	No data available.
Calcium branched chain alkyl phenate sulphide (90480-91-4)	
Soil	No data available.
Calcium long chain alkaryl sulphonate (90194-27-7)	
Soil	No data available.
1,2-Ethanediol (107-21-1)	
Soil	This material has low volatility and is water soluble hence the potential for mobility is high.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Waste disposal according to official state regulations.
Waste disposal recommendations	: Remove to an authorized waste treatment plant.
European List of Waste (LoW) code	: 13 02 05* - mineral-based non-chlorinated engine, gear and lubricating oils 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data 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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1A	Reproductive toxicity, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360F	May damage fertility
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH208	Contains . May produce an allergic reaction.
EUH210	Safety data sheet available on request.

SDS MPM REACH

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