



Engine Flush

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 03/02/2016 Revision date: 05/04/2022 Supersedes version of: 28/09/2018 Version: 1.2

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

1.1. Product identifier

Product form : Mixture
Name : Engine Flush
Product code : 1032B
Article number : 1032B

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Consumer use
Professional use.
Function or use category : Engine flush

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
Maxwellstraat 41
3316 GP Dordrecht
Nederland
T 0031 78 651 2322 - F 0031 78 617 4848
mjkooijman@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 54924171
During office hours: 8.30 t/m 17:00 h

| Country | Official advisory body | Address | Emergency number | Comment |
|----------------|--|---------------------------------|------------------|--------------------------------------|
| | Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road SE14 5ER London | 0870 243 2241 | |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH | 0344 892 0111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Belfast Centre) Royal Victoria Hospital | Grosvenor Road BT12 6BA | 0344 892 0111 | Only for healthcare professionals |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aspiration hazard, Category 1 H304

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Danger
Contains : Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics <2% aromatics
Hazard statements (CLP) : H304 - May be fatal if swallowed and enters airways.
Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P260 - Do not breathe vapours.
P262 - Do not get in eyes, on skin, or on clothing.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.
P405 - Store locked up.
P501 - Dispose of contents and container to a hazardous or special waste collection point.
EUH-statements : EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : aliphatic hydrocarbons $\geq 30\%$
aromatic hydrocarbons 5-15%

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|---------|---|
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics <2% aromatics | EC-No.: 918-481-9 REACH-no: 01-2119457273-39 | 80 – 90 | Asp. Tox. 1, H304 |
| Kerosine (petroleum); Straight run kerosine; [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 150°C to 290°C (320°F to 554°F).] | CAS-No.: 8008-20-6 EC-No.: 232-366-4 EC Index-No.: 649-404-00-4 | < 10 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 |
| (2-methoxymethylethoxy)propanol | CAS-No.: 34590-94-8 EC-No.: 252-104-2 REACH-no: 01-2119450011-60 | 2 – 5 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |

Full text of H- and EUH-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand. |
| First-aid measures after inhalation | : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| First-aid measures after skin contact | : Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. |
| First-aid measures after eye contact | : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| First-aid measures after ingestion | : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. |

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

| | |
|-------------------------------------|--|
| Symptoms/effects after skin contact | : Prolonged or repeated contact may cause skin to become dry or cracked. |
| Symptoms/effects after ingestion | : May be fatal if swallowed and enters airways. |

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | : Carbon dioxide. Dry powder. Water haze. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

| | |
|--|--|
| Hazardous decomposition products in case of fire | : Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases. |
|--|--|

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Exercise caution when fighting any chemical fire. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |
| Other information | : Prevent liquid from entering sewers, watercourses, underground or low areas. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|--|
| General measures | : Evacuate area. Eliminate every possible source of ignition. Ensure adequate ventilation, especially in confined areas. |
|------------------|--|

6.1.1. For non-emergency personnel

| | |
|----------------------|--------------------------------------|
| Emergency procedures | : Keep public away from danger area. |
|----------------------|--------------------------------------|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
|----------------------|--|

6.2. Environmental precautions

Dam up the liquid spill. 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 | : Recover the product with absorbent material. |
| Methods for cleaning up | : Clean up any spills as soon as possible, using an absorbent material to collect it. |

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6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product.
Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area. Keep in original containers.
Incompatible materials : Freezing. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses. Gloves.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

| Eye protection | | | |
|---|----------------------|-----------------|----------|
| Type | Field of application | Characteristics | Standard |
| Eye protection should only be necessary where liquid could be splashed or sprayed | | | EN 166 |

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

| Hand protection | | | | | |
|---------------------------------------|----------------------|-------------------|----------------|-------------|------------|
| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
| Reusable gloves, Disposable gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | | 3 (> 0.65) | EN ISO 374 |

8.2.2.3. Respiratory protection

Respiratory protection:

Good ventilation of the workplace required

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-------------------|
| Physical state | : Liquid |
| Colour | : Yellow. |
| Appearance | : clear. |
| Odour | : hydrocarbons. |
| Odour threshold | : Not available |
| Melting point | : Not available |
| Freezing point | : Not available |
| Boiling point | : 170 – 217 °C |
| Flammability | : Not available |
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : 64 °C |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : Not available |
| Viscosity, kinematic | : Not available |
| Solubility | : Not available |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50°C | : Not available |
| Density | : Not available |
| Relative density | : 0.79 – 0.8 20°C |
| Relative vapour density at 20°C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Heat. Open flame. Sparks. Water, humidity. Freezing.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics <2% aromatics

| | |
|-----------------------|--------------------------|
| LD50 oral rat | 5000 mg/kg |
| LD50 dermal rat | > 5000 mg/kg |
| LC50 Inhalation - Rat | > 4900 mg/m ³ |

(2-methoxymethylethoxy)propanol (34590-94-8)

| | |
|--------------------|------------|
| LD50 oral rat | 5135 mg/kg |
| LD50 dermal rat | 9500 mg/kg |
| LD50 dermal rabbit | 9500 mg/kg |

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
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

(2-methoxymethylethoxy)propanol (34590-94-8)

| | |
|----------------------|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |
|----------------------|-----------------------------------|

STOT-repeated exposure : Not classified
Aspiration hazard : May be fatal if swallowed and enters airways.

11.2. Information on other hazards

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics <2% aromatics

| | |
|----------------------|--------------------------------|
| LC50 - Fish [1] | 2 mg/l (4 days) |
| EC50 - Crustacea [1] | 3 mg/l (aquatic invertebrates) |
| EC50 72h - Algae [1] | 1.1 mg/l |

(2-methoxymethylethoxy)propanol (34590-94-8)

| | |
|-----------------------------|------------|
| EC50 - Crustacea [1] | 1919 mg/l |
| Threshold limit - Algae [1] | 969 mg/l |
| Threshold limit - Algae [2] | > 969 mg/l |

12.2. Persistence and degradability

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics <2% aromatics

| | |
|----------------|----------------|
| Biodegradation | 80 % (28 days) |
|----------------|----------------|

(2-methoxymethylethoxy)propanol (34590-94-8)

| | |
|---------------------------------|------------------------------------|
| Persistence and degradability | Readily biodegradable. |
| Biochemical oxygen demand (BOD) | 0 g O ₂ /g substance |
| ThOD | 2.06 g O ₂ /g substance |
| BOD (% of ThOD) | 0 % ThOD |

12.3. Bioaccumulative potential

(2-methoxymethylethoxy)propanol (34590-94-8)

| | |
|---|--------|
| Partition coefficient n-octanol/water (Log Pow) | 0.0043 |
| Partition coefficient n-octanol/water (Log Kow) | < 4 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container at hazardous or special waste collection point.

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| | |
|--|---|
| Sewage disposal recommendations | : Do not discharge into drains or the environment. |
| Product/Packaging disposal recommendations | : Collect all waste in suitable and labelled containers and dispose according to local legislation. |
| Additional information | : Empty the packaging completely prior to disposal. Do not re-use empty containers. |
| Ecology - waste materials | : Avoid release to the environment. |

SECTION 14: Transport information

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

| ADR | IMDG | IATA | ADN | RID |
|--|----------------|----------------|----------------|----------------|
| 14.1. UN number or ID number | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.2. UN proper shipping name | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.3. Transport hazard class(es) | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.4. Packing group | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| Clean up even minor leaks or spills if possible without unnecessary risk | | | | |

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

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

Other information, restriction and prohibition regulations : Detergent Regulation. Aliphatic hydrocarbons. ≥30%. aromatic hydrocarbons. <5%.

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

Abbreviations and acronyms:

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

ICAO: International Civil Aviation Organization

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Full text of H- and EUH-statements:

| | |
|--------------|---|
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

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Full text of H- and EUH-statements:

| | |
|---------------|--|
| H335 | May cause respiratory irritation. |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

Safety Data Sheet (SDS), EU

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.