



Engine Flush Cleaner

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 1.5

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Engine Flush
Product code : 4031
Other means of identification : 4030, 4030-4, 4030-55, 4031

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

Use of the substance/mixture : Engine Flushing Oil
Recommended use : Lubricants, Greases and Release Products

1.3. Details of the supplier of the safety data sheet

Bardahl Manufacturing Corporation
1400 NW 52nd Street
Seattle, WA 98107
T 206-783-4851 - F 206-784-3219
jackie.leung@bardahl.com - www.bardahl.com

1.4. Emergency telephone number

Emergency number : 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Aspiration hazard, Category 1 May be fatal if swallowed and enters airways

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : May be fatal if swallowed and enters airways
Precautionary statements (GHS-US) : If swallowed: Immediately call a POISON CENTER
Do NOT induce vomiting
Store locked up
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|-------------|---------------------|-------|-----------------------|
| Mineral oil | (CAS No) 64742-53-6 | >= 80 | Asp. Tox. 1, H304 |

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Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Do not induce vomiting. Call a physician immediately. |

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. |
| Symptoms/injuries after ingestion | : Risk of lung oedema. |

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 | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Special hazards arising from the substance or mixture

| | |
|-------------|--|
| Fire hazard | : Combustible liquid. |
| Reactivity | : The product is non-reactive under normal conditions of use, storage and transport. |

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. Wear personal protective equipment. |
| Handling temperature | : Not determined |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|-----------------------|---|
| Storage conditions | : Store locked up. Store in a well-ventilated place. Keep cool. |
| Incompatible products | : Oxidizing agent. |
| Storage temperature | : Not Determined |

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Engine Flush | | |
|--------------------------|---------------------------------------|----------------------|
| ACGIH | ACGIH TWA (mg/m ³) | 5 mg/m ³ |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 5 mg/m ³ |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 5 mg/m ³ |
| NIOSH | NIOSH REL (STEL) (mg/m ³) | 10 mg/m ³ |
| Mineral oil (64742-53-6) | | |
| Not applicable | | |

8.2. Exposure controls

| | |
|----------------------------------|---|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Hand protection | : Protective gloves. |
| Eye protection | : Safety glasses. |
| Skin and body protection | : Wear suitable protective clothing. |
| Respiratory protection | : In case of insufficient ventilation, wear suitable respiratory equipment. |
| Environmental exposure controls | : Avoid release to the environment. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|-----------------------------------|
| Physical state | : Liquid |
| Colour | : amber |
| Odour | : characteristic |
| Odour threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : 140 °C PMCC typical |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 0.878 g/cm ³ typical |
| Solubility | : No data available |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 5.2 cSt @ 40 C typical |
| Viscosity, dynamic | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|--|---|
| Acute toxicity | : Not classified |
| 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 |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : May be fatal if swallowed and enters airways. |
| Symptoms/injuries after ingestion | : Risk of lung oedema. |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

| Engine Flush | |
|----------------|------------------------------|
| LC50 fish 1 | > 100 mg/l Flathead Minnow |
| EC50 Daphnia 1 | > 10000 mg/l Daphnia magna |
| ErC50 (algae) | > 100 mg/l 72 hr Green algae |

12.2. Persistence and degradability

| Engine Flush | |
|-------------------------------|--|
| Persistence and degradability | Contains non readily biodegradable component(s). |

12.3. Bioaccumulative potential

| Engine Flush | |
|---------------------------|---|
| Bioaccumulative potential | No test data of component(s) available. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|---------------------------------------|
| Effect on the global warming | : No known effects from this product. |
| GWPmix comment | : No known effects from this product. |

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

TDG

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Engine Flush

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Mineral oil (64742-53-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date : 11/02/2016

Full text of H-statements:

H304

May be fatal if swallowed and enters airways

NFPA health hazard

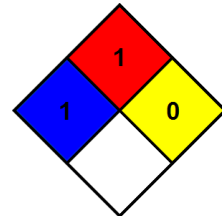
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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HMIS III Rating

| | |
|---------------------|---|
| Health | : 1 Slight Hazard - Irritation or minor reversible injury possible |
| Flammability | : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB) |
| Physical | : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives. |
| Personal protection | : B B - Safety glasses, Gloves |

SDS US (GHS HazCom 2012)

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