



# ENGINE FLUSH BARDAHL

## Safety Data Sheet

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

Date of issue: 18-12-14 Revision date: 16-02-18 Supersedes: 24-07-17 Version: 2.1

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : ENGINE FLUSH BARDAHL  
Product code : 1032B # 732103BR3  
Type of product : Detergent

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

##### 1.2.1. Relevant identified uses

Intended for general public  
Main use category : Consumer use  
Function or use category : Cleaning/washing agents and additives

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Distributor

SADAPS BARDAHL Additives & Lubricants  
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3  
7522 TOURNAI - BELGIQUE  
T +32 (0).69.59.03.60 - F +32 (0).69.59.03.61  
[msds@bardahlfrance.com](mailto:msds@bardahlfrance.com) - [www.bardahlfrance.com](http://www.bardahlfrance.com)

##### Supplier

SADAPS BARDAHL Additives & Lubricants  
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3  
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[msds@bardahlfrance.com](mailto:msds@bardahlfrance.com) - [www.bardahlfrance.com](http://www.bardahlfrance.com)

#### 1.4. Emergency telephone number

Emergency number : + 32 (0)70.245.245 / +33 (0)1.45.42.59.59

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Saudi Arabia	Poison Control Center-Riyadh	General Directorate of Health Affairs Medial Province	+966 112324180 +966 112324189	
United Arab Emirates	Health Authority – Abu Dhabi (HAAD) Poison & Drug Information Center (PDIC)	P.O. Box 5674 Abu Dhabi	+ 800-424	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	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]

Aspiration hazard, Category 1 H304

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

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Signal word (CLP)	: Danger
Hazardous ingredients	: 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, a doctor. P331 - Do NOT induce vomiting. P405 - Store locked up. P501 - Dispose of contents/container to a hazardous or special waste collection point
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking.
Child-resistant fastening	: Applicable
Tactile warning	: Applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

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	> 50	Asp. Tox. 1, H304
Kerosine (petroleum) substance with national workplace exposure limit(s) (BE)	(CAS-No.) 8008-20-6	5-15	Flam. Liq. 3, H226 Asp. Tox. 1, H304
(2-methoxymethylethoxy)propanol substance with national workplace exposure limit(s) (FR)	(CAS-No.) 34590-94-8 (EC-No.) 252-104-2 (REACH-no) 01-2119450011-60	2 - 5	Not classified

Full text of H-statements: see section 16

## 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	: Remove contaminated clothes. Wash skin with plenty of water. Wash contaminated clothing before reuse.
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	: Repeated exposure may cause skin dryness or cracking.
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. Water spray. Dry powder. 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 releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
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### 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. Keep public away from danger area. Equip cleanup crew with proper protection.
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#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Prevent entry to sewers and public waters. Notify authorities if liquid 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.

### 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. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep out of frost. Keep away from heat.
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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

(2-methoxymethylethoxy)propanol (34590-94-8)		
France	VME (mg/m <sup>3</sup> )	308 mg/m <sup>3</sup>
France	VME (ppm)	50 ppm
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics		
France	VME (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
France	VME (ppm)	184 ppm
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	275 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	50 ppm
Kerosine (petroleum) (8008-20-6)		
Belgium	Limit value (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>

### 8.2. Exposure controls

#### Hand protection:

Protective gloves

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

#### Eye protection:

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Eye protection should only be necessary where liquid could be splashed or sprayed. EN 166

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Good ventilation of the workplace required

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: Yellow.
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	: No data available
Boiling point	: No data available
Flash point	: 64 °C
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	: 0,79 - 0,8 g/cm <sup>3</sup> 20°C
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: < 20,5 mm <sup>2</sup> /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

Stable under normal conditions of use.

### 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

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### 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 toxicological effects

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

<b>Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)</b>	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	20000 mg/kg

<b>(2-methoxymethylethoxy)propanol (34590-94-8)</b>	
LD50 oral rat	<= 5000 mg/kg
LD50 dermal rabbit	9510 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	0 mg/l/4h

<b>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	4951 mg/m <sup>3</sup> 4 hours

<b>Kerosine (petroleum) (8008-20-6)</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5,28 mg/l/4h

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

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

<b>ENGINE FLUSH BARDAHL</b>	
Viscosity, kinematic	< 20,5 mm <sup>2</sup> /s 40°C

## SECTION 12: Ecological information

### 12.1. Toxicity

Acute aquatic toxicity : Not classified  
Chronic aquatic toxicity : Not classified

<b>Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)</b>	
LC50 fish 1	4,5 mg/l (Cyprinodon variegatus - OECD 203)
EC50 Daphnia 1	23 mg/l (Daphnia magna - OECD 202)
EC50 72h algae (1)	21 mg/l

<b>(2-methoxymethylethoxy)propanol (34590-94-8)</b>	
LC50 fish 1	> 1000 mg/l OECD 203
EC50 Daphnia 1	1919 mg/l OECD 202 (Daphnia magna)
EC50 72h algae (1)	6999 mg/l
EC50 96h algae (1)	> 969 mg/l OECD 201 (Pseudokirchneriella subcapitata)

<b>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>	
LC50 fish 1	> 1000 mg/l
EC50 Daphnia 1	> 1000 mg/l
EC50 72h algae (1)	> 1000 mg/l

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<b>Kerosine (petroleum) (8008-20-6)</b>	
LC50 fish 1	18 - 25 mg/l pisces
LC50 fish 2	45 mg/l Pimephales promelas
LC50 other aquatic organisms 1	1 - 100 mg/l
EC50 Daphnia 1	1,4 - 21 mg/l Daphnia magna
Threshold limit other aquatic organisms 1	1-100
Threshold limit algae 1	4-8 Algae

### 12.2. Persistence and degradability

<b>(2-methoxymethylethoxy)propanol (34590-94-8)</b>	
Biodegradation	75 % OECD301F

<b>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>	
Biodegradation	80 % 28 days

<b>Kerosine (petroleum) (8008-20-6)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

<b>Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)</b>	
Log Pow	0,69

<b>(2-methoxymethylethoxy)propanol (34590-94-8)</b>	
Bioconcentration factor (BCF REACH)	<

<b>Kerosine (petroleum) (8008-20-6)</b>	
Log Pow	3,3 - 6
Bioaccumulative potential	bioaccumulative.

### 12.4. Mobility in soil

<b>(2-methoxymethylethoxy)propanol (34590-94-8)</b>	
Log Koc	0,28

<b>Kerosine (petroleum) (8008-20-6)</b>	
Surface tension	0,02 - 0,03 N/m

### 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

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.
Ecology - waste materials	: Do not discharge the product into the environment.

## SECTION 14: Transport information

In accordance with ADR / IATA / IMDG / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

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### - Transport by sea

Not applicable

### - Air transport

Not applicable

### - Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol 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

Detergent Regulation : Labelling of contents:

Component	%
aliphatic hydrocarbons	>=30%
aromatic hydrocarbons	<5%

#### 15.1.2. National regulations

##### France

Occupational diseases : RG 84 - Affections engendrées par les solvants organiques liquides à usage professionnel

##### Germany

Reference to AwSV : Water hazard class (WGK) 3, severe hazard to waters (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

##### Denmark

Class for fire hazard : Class III-1

Store unit : 50 liter

Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:

Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
EUH066	Repeated exposure may cause skin dryness or cracking.

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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*