



ENGINE FLUSH

PN: R1201

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

Engine Flush

1.1 Relevant uses: Removes operational contamination and resin deposits in the entire oil and lubricating circuit, residue and carbonization in the piston rings and the upper cylinder area, neutralizes harmful engine acids. This leads to improved engine performance. In addition, Engine Flush protects the engine during the cleaning process through highly effective lubrication components. Used for all petrol & diesel-powered engines.

1.2 Details of the supplier of the safety data sheet

Company: RHINOMOTIVE LTD - UK 71-75 SHELTON STREET, LONDON, UNITED KINGDOM
Emergency contact number +971 4 329 7775
Email: info@rhinomotive.com

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture Regulation (EC) No. 1272/2008

Hazard categories:

Aspiration hazard: Asp. Tox. 1 Reproductive toxicity: Lact.
Hazardous to the aquatic environment: Aquatic Chronic 3 Hazard Statements:
May be fatal if swallowed and enters airways. May cause harm to breast-fed children.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008 Hazard components for labelling
Hydrocarbons, C10-C13, n-Alkanes, Isoalkanes, Cyclics, < 2% Aromatics Chlorparaffines C14-C28
Signal word: Danger
Pictograms:



Hazard statements

H304	May be fatal if swallowed and enters airways.
H362	May cause harm to breast-fed children.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children.
P260	Do not breathe vapour/aerosole.
P263	Avoid contact during pregnancy and while nursing.

- P270 Do not eat, drink or smoke when using this product. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P331 Do NOT induce vomiting.
- P405 Store locked up.
- P501 Dispose of this material and its container to hazardous or special waste collection point.

Special labelling of certain mixtures

- EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixtures

Chemical characterization
Anti-Friction Components Detergents, Dispersants
Synthetic agent combinations corrosion preventing agent

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
64742-48-9	Hydrocarbons, C10-C13, n-Alkanes, Isoalkanes, Cyclics, < 2% Aromatics			80 - < 100 %
	918-481-9		01-2119457273-39	
	Asp. Tox. 1; H304 EUH066			
85535-85-9	Chlorparaffines C14-C28			1 - < 5 %
	287-477-0		01-2119519269-33	
	Lact., Aquatic Acute 1, Aquatic Chronic 1; H362 H400 H410 EUH066			

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

4. FIRST AID MEASURES

4.1. Description of first aid measures

After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

After contact with skin

Take off immediately all contaminated clothing, including underwear and shoes. Subsequently wash off with: Water and soap. Seek medical attention if problems persist.

After contact with eyes

Remove contact lenses.

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. After ingestion of absorption substances: Consult physician.

After ingestion

Let water be drunken in little sips (dilution effect). Consult physician. Do NOT induce vomiting.

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

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation of eyes: Irritant effect possible.

After ingestion: Harmful: may cause lung damage if swallowed.

- 4.3. Indication of any immediate medical attention and special treatment needed
Warning about danger of aspiration.

5. FIREFIGHTING MEASURES

- 5.1. Extinguishing media Suitable extinguishing media
Extinguishing powder. Sand. Carbon dioxide (CO₂). alcohol resistant foam.
- Unsuitable extinguishing media
High power water jet.
- 5.2. Special hazards arising from the substance or mixture
Formation of decomposition products possible.
In case of fire and/or explosion do not breathe fumes.
- 5.3. Advice for firefighters
In case of fire: Wear self-contained breathing apparatus.
- Additional information
Cool endangered container in case of fire. Beat down gas/vapours/mist with water spray.
Contaminated fire-fighting water must be collected separately.

6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures
Wear a self-contained breathing apparatus and chemical resistant suit. Keep away from sources of ignition. - No smoking.
Do not breathe gas/fumes/vapour/spray.
- 6.2. Environmental precautions
Beat down gas/vapours/mist with water spray. Do not allow to enter surface water or drains.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
- 6.3. Methods and material for containment and cleaning up
Prevent spreading of spillages (e.g. by oil barrier).
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- 6.4. Reference to other sections
No data

7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling Advice on safe handling
The substance should only be handled in closed apparatus or systems. Vapours / aerosols must be extracted by suction immediately at point of origin. Avoid contact with skin and eyes.
Advice on protection against fire and explosion.
Keep away from sources of ignition. - No smoking.
Take precautionary measures against static discharges.
- 7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep container tightly closed in a cool, well-ventilated place. Do not store at temperatures over: 50 °C
Take precautionary measures against static discharges.
- 7.3. Specific end use(s)
No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. Control parameters

8.2. Exposure controls

Protective and hygiene measures

Take off immediately all contaminated clothing Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin and eyes.

Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke.

Wash hands before breaks and after work

Eye/face protection

Wear tightly sealed safety glasses against possible splashes into the eyes. (EN 166)

Hand protection

Tested protective gloves are to be worn: NBR (Nitrile rubber). FKM (Fluoroelastomer (Viton)). (EN374)

Skin protection

Wear suitable solvent-proof protective clothing according to EN 465.

Respiratory protection

In case of accumulation of fumes/aerosols, provide adequate ventilation. In case of fire: Wear self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	Green
Odour	Aromatic
Changes in the physical state	
Initial boiling point and boiling range	180 - 220 °C
Flash point	> 60 °C
Lower explosion limits	
Upper explosion limits	
Ignition temperature	> 200 °C
Vapour pressure	20 hPa
Density (at 20 °C)	0,790 - 0,820 g/cm ³
Water solubility (at 20 °C)	insoluble
Solubility in other solvents	Organic solvents

9.2. Other information

No data

10. STABILITY AND REACTIVITY

10.1. Reactivity

No information available.

10.2. Chemical stability

No decomposition when used as intended.

10.3. Possibility of hazardous reactions

No dangerous reactions are known.

10.4. Conditions to avoid

Only use the material in places where open light, fire and other flammable sources can be kept away. No decomposition when used as intended.

- 10.5. Incompatible materials
Oxidizing agents. acid, concentrated. Alkalis (alkalis), concentrated.
- 10.6. Hazardous decomposition products
No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64742 -48 -9	Hydrocarbons, C10 -C13, n-Alkanes, Isoalkanes, Cyclics, < 2% Aromatics				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
	inhalative (4 h) gas	LC50 >5 ppm	Rat		
85535 -85 -9	Chlorparaffines C14 -C28				
	oral	LD50 4000 mg/kg	Rat		
	dermal	LD50 4000 mg/kg	Rat		
	inhalative (1 h) vapour	LC50 48170 mg/l	Rat		

Irritation and corrosivity

After skin contact: Frequently or prolonged contact with skin may cause dermal irritation. Irritation of eyes: Irritant effect possible.

Sensitizing effects

no danger of sensitization.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64742-48-9	Hydrocarbons, C10-C13, n-Alkanes, Isoalkanes, Cyclics, < 2% Aromatics					
	Acute fish toxicity	LC50 1000 mg/l	96 h	Oncorhynchus mykiss		
	Acute algae toxicity	ErC50 1000 mg/l	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 1000 mg/l	48 h	Daphnia magna (Big water flea)		
85535-85-9	Chlorparaffines C14-C28					
	Acute algae toxicity	ErC50 3,2 mg/l	96 h	Algae		

- 12.2. Persistence and degradability
No information available.
- 12.3. Bioaccumulative potential
Low potential of bio-accumulation.
- 12.4. Mobility in soil
No information available.
- 12.5. Results of PBT and vPvB assessment
No information available.
- 12.6. Other adverse effects
No information available.
Further information
Do not allow to enter surface water or drains.

13. DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods
Advice on disposal
Do not dispose with household waste.
Do not allow to enter surface water or drains.
Arrange about the exact waste code with the local waste disposal expert.
Must add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.
Contaminated packaging
Container must be completely emptied.
Do not pierce, cut up or weld unclean container. (Explosion hazard.)

14. TRANSPORTATION INFORMATION

Land transport (ADR/RID)

- 14.1. UN number: -
- 14.2. UN proper shipping name: -
- 14.3. Transport hazard class(es): -
- 14.4. Packing group: -

Other applicable information (land transport)
No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)
Other applicable information (inland waterways transport)
No dangerous good in sense of this transport regulation.

Marine transport (IMDG)
Other applicable information (marine transport)
No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)
Other applicable information (air transport)
No dangerous good in sense of this transport regulation.

- 14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no
- 14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No information available.

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28: Hydrocarbons, C10-C13, n-Alkanes, Isoalkanes, Cyclics, < 2% Aromatics

Additional information

Contains: > 30 % hydrocarbons, aliphatic.

National regulatory information

Water contaminating class (D):

15.2. Chemical safety assessment

2 - clearly water contaminating

Chemical safety assessments for substances in this mixture were not carried out.

16. OTHER INFORMATION

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Asp. Tox. 1; H304	Calculation method
Lact.; H362	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H304	May be fatal if swallowed and enters airways.
H362	May cause harm to breast-fed children.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The information is based on present level of our knowledge. It does not, however, given assurances of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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