



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 1 of 12

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

- Product name: **KENNOL ENGINE FLUSH**

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

- Commercial use: Detergent Additive (for more details, please report back to the technical manual)

1.3. Details of the supplier of the Safety Data Sheet

- Fournisseur **ACCOR LUBRIFIANTS SA**

Adresse : 8 Rue du Mans - BP 30406 - 49304 CHOLET CEDEX

Téléphone : 02.41.75.26.70

Télécopie : 02.41.62.67.02

Contact e-mail : jerome.poulain@accor-lubrifiants.com

1.4. Emergency telephone number

In France, the valid emergency number is the ORFILA (INRS) number: + 33 (0)1 45 42 59 59. This telephone number gives contacts of all French poison centers ("centres anti-poison et de toxicovigilance"). These information centers provide you with free medical advice (except the cost of call), 24 hours a day, 7 days a week. For the information related to other countries, see the web page dedicated to national helpdesks of the ECHA website (European Chemicals Agency) that lists all the information by country:

<http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>

SECTION 2 - HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification CE 1272/2008 (CLP)

H304 – Aspiration hazard, Category 1



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 2 of 12

2.2. Label elements

Label Conforms to Norm (CE) N° 1272/2008 (CLP) :

Hazard pictogram(s):



Signal word(s): DANGER

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

Hazard statement(s):

H304 – May be fatal if swallowed and enters airways.

Precautionary statement(s) – Prevention

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.

Precautionary statement(s) - Intervention

P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER, a doctor.

P331 – Do NOT induce vomiting.

Precautionary advice- Storage

P405 – Store locked up.

Precautionary advice - Elimination

P501 - Dispose of contents/container to a hazardous waste collection center, as per national regulation

EUH- statements: EUH066 – Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No additional information available



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 3 of 12

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

- Dangerous components:

COMPONENTS	Percentage (in weight)	CLP Classification (EC) No 1272/2008	NUMBERS
			INDEX CE CAS Enregistrement
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	> 50 %	Asp. Tox. 1; H304	- 918-481-9 - 01-2119457273-39
Kerosine (petroleum) substance with national workplace exposure limit(s) (BE, IE)	< 7 %	Flam. Liq. 3 ; H226 Asp. Tox. 1 ; H304	649-404-00-4 232-366-4 8008-20-6 -
(2-methoxymethylethoxy)propanol	< 5 %	Not classified	- 252-104-2 34590-94-8 01-2119450011-60

The whole of the text of risk phrases and hazard statements of this section 3 appears in 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.



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 4 of 12

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 eye contact	Causes serious eye irritation.
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: CO₂, dry powder, resistant foam; the water can be used to cool and protect product containers exposed.

Unsuitable extinguishing media for safety reason: 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.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire.

Protection during firefighting: Do not enter fire area 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

Personal protective equipment must be worn. Avoid all contact with skin. If the spill occurs in a closed environment or other area with poor ventilation, ventilate before entering the area.

6.2. Environmental precautions

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case product reaches water or sewage system.
Do not discharge into the drains/surface waters/groundwater.



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 5 of 12

6.3. Methods and material for containment and cleaning up

Soak up to recycle and/or dispose of. The remaining liquid can be absorbed with inert material.

6.4. Reference to other sections

To obtain information about safe handling, please see chapter 7.

To obtain information about personal protective equipment, please see chapter 8.

To obtain information about elimination, please see chapter 13.

SECTION 7 - HANDLING AND STORAGE

7.1. Precautions for safe handling

Precaution 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

Technical measures: Provide local exhaust or general room ventilation.

Storage conditions and storage area:

Store in a closed container.

Keep out of frost.

Keep away from naked flames/heat.

Keep away from ignition sources.

Store in a dry place.

Store in a well-ventillated place.

Store in original container.

7.3. Specific end use(s)

No additional information available.



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 6 of 12

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Kerosine (petroleum) (8008-20-6)		
Belgium	Limit value (mg/m ³)	200 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
USA - ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³
(2-methoxymethylethoxy)propanol (34590-94-8)		
France	VME (mg/m ³)	308 mg/m ³
France	VME (mg/m ³)	50 ppm
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics		
France	VME (mg/m ³)	1200 mg/m ³
France	VME (ppm)	184 ppm
Norway	Grenseverdier (AN) (mg/m ³)	275 mg/m ³
Norway	Grenseverdier (ppm)	50 ppm

8.2. Exposure controls

Hand protection :					
Gloves. EN 374					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)		3 (> 0.65)	EN 374
Eye protection:					
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):





SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 7 of 12

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physic 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 ³ (20°C)
Solubility	No data available
Log Pow	No data available
Kinematic viscosity	< 20.5 mm ² /s (40°C)
Dynamic viscosity	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



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 8 of 12

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 toxicological effects

Acute toxicity: Not classified

Kerosine (petroleum) (8008-20-6)	
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
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	
LD50 oral rat	3600 mg/kg
LD50 dermal rabbit	20000 mg/kg
(2-methoxymethylethoxy)propanol (34590-94-8)	
LD50 oral rat	<= 5000 mg/kg
LD50 dermal rabbit	9510 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	0 mg/l 4 hours
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	4951 mg/m ³ 4 hours

Skin corrosion/irritation

Not classified

Serious eye damage/irritation

Not classified

Respiratory or skin sensitisation

Not classified

Gen cell mutagenicity

Not classified

Carcinogenicity

Not classified



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 9 of 12

Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	May be fatal if swallowed and enters airways

SECTION 12 - ECOLOGICAL INFORMATION

12.1. Toxicity

Kerosine (petroleum) (8008-20-6)	
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)
Toxic threshold other aquatic organisms 1	1 - 100
Toxic threshold algae	4 - 8 Algae
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	
LC50 fish 1	4.5 mg/l (Cyprinodon bariegatus – OECD 203)
EC50 Daphnia 1	23 mg/l (Daphnia magna – OECD 202)
EC50 72h algae 1	21 mg/l (Scenedesmus subspicatus – OECD 201)
(2-methoxymethylethoxy)propanol (34590-94-8)	
LC50 fish 1	> 1000 mg/l OECD 203
EC50 Daphnia 1	1919 mg/l OECD 2002 (Daphnia magna)
EC50 72h algae 1	6999 mg/l
EC50 96h algae (1)	> 969 mg/l OECD 201 (Pseudokirchneriella subcapitata)
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
LC50 fish 1	> 1000 mg/l
EC50 Daphnia 1	> 1000 mg/l
EC50 72h algae 1	> 1000 mg/l

12.2. Persistence and degradability

Kerosine (petroleum) (8008-20-6)	
Persistence and degradability	Product is biodegradable
(2-methoxymethylethoxy)propanol (34590-94-8)	
Biodegradation	75 % OECD301F
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Biodegradation	80 % 28 days



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 10 of 12

12.3. Bioaccumulative potential

Kerosine (petroleum) (8008-20-6)	
Log Pow	3,3 - 6
Bioaccumulative potential	Bioaccumulative
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (68457-79-4)	
Log Pow	0.69
(2-methoxymethylethoxy)propanol (34590-94-8)	
Bioconcentration factor(BFC REACH)	<

12.4. Mobility in soil

Kerosine (petroleum) (8008-20-6)	
Surface tension	0,02 - 0,03 N/m
(2-methoxymethylethoxy)propanol (34590-94-8)	
Log Koc	0.28

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

· Recommendation:

Must not be disposed together with household waste.

· Waste disposal:

Do not allow product to reach sewage system.

Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.

SECTION 14 - TRANSPORT INFORMATION

14.1. UN number

ADR, IMDG, IATA: Not applicable



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 11 of 12

14.2. UN proper shipping name

· **ADR**

Not applicable

· **IMDG**

Not applicable

· **IATA**

Not applicable

14.3. Transport hazard class(es)

· **ADR**

Not applicable

· **IMDG, IATA**

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code"

Not applicable.

SECTION 15 - REGULATORY INFORMATION

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

Be ensured that all notation or local regulations are observed.

European regulatory guidelines:

- Regulation (CE) n° 1907/2006 of the European Parliament and of the Council of 18 December 2006 for Registration, Evaluation, Authorisation and Restriction of Chemical substances, as well as as restrictions applicable to these substances (REACH), and establishing a European Chemicals Agency modifying directive 1999/45/CE and repealing Commission Regulation (CEE) n° 793/93 of Council Regulation (CE) n° 1488/94 of the Commission as well as directive 76/769/CEE of Council and directives 91/155/CEE, 93/67/CEE, 93/105/CE and 2000/21/CE of the Commission, with modifications.
- Regulation (CE) n° 1272/2008 of the European Parliament and of the Council of 16 December 2008 for classification, labelling and packaging of substances and mixtures, modifying and repealing directives 67/548/CEE and 1999/45/CE and modifying the regulation (CE) n° 1907/2006, with modifications.



SAFETY DATA SHEET

According to E.C Regulation 453-2010

KENNOL ENGINE FLUSH

Replace the version of xx/xx/xxxx

MSDS :xxx-164100-19/03/2019

19/03/2019

Page 12 of 12

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16 - OTHER INFORMATION

Modifications indications

1st version

Symbols and hazard phrases used in this document section 3:

H226 – Flammable liquid and vapour.

H304 –May be fatal if swallowed and enters airways.

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