



Kemetyl

Safety data sheet

According to Regulation (EU) No 2015/830

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

1.1. Product identifier

Product name : SHELL ENGINE COOLANT READY TO USE (GREEN)
Product code : 2000153

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

Application : SU21 Consumer product. PC0 Other. Car maintenance. PC4 Coolant.

1.3. Details of the supplier of the safety data sheet

Supplier : Kemetyl Nederland BV
Industrieweg 30
3762 EK Soest, The Netherlands
Telephone : +31-35 7604900
E-mail : msds@kemetyl.com
Website : www.kemetyl.com

1.4. Emergency telephone number

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:

NL - Telephone : +31-35-6099310

(During office hours only)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification : Acute toxicity, category 4. Specific target organ toxicity — repeated exposure, category 2. (1272/2008/EC)

Human health hazards : Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.

Environmental hazards : Not classified as dangerous according to statutory EC-Directives.

2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Warning

| | | | |
|------------------|---|--------------|---|
| H- and P-phrases | : | H302 | Harmful if swallowed. |
| | | H373 kidneys | May cause damage to kidneys through prolonged or repeated exposure. |
| | | P101 | If medical advice is needed, have product container or label at hand. |
| | | P102 | Keep out of reach of children. |
| | | P260 vapour | Do not breathe vapours. |
| | | P270 | Do not eat, drink or smoke when using this product. |
| | | P314 | Get medical advice/attention if you feel unwell. |
| | | P501 | Dispose of contents/container to an official chemical waste depot. |

Labelling of packagings where the contents do not exceed 125 ml and it is technically impossible to list all phrases:

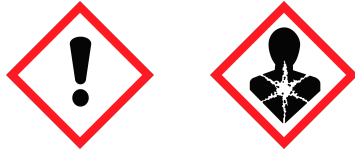


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Hazard pictograms :



Signal word : Warning

H- and P-phrases :

- H302 Harmful if swallowed.
- H373 kidneys May cause damage to kidneys through prolonged or repeated exposure.
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P260 vapour Do not breathe vapours.
- P270 Do not eat, drink or smoke when using this product.
- P501 Dispose of contents/container to an official chemical waste depot.

Additional labelling (for all packaging sizes)
: Contains: Ethanediol .

Other information : According to Regulation (EC) No 1272/2008, the packaging of this product shall carry a tactile warning of danger.

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

| Substance name | Concentration (w/w) (%) | CAS nr. | EC number | Remark | REACH nr. |
|-------------------------|-------------------------|------------|-----------|--------|-----------|
| Ethanediol | 25 - < 50 | 107-21-1 | 203-473-3 | | |
| Sodium 2-ethylhexanoate | 0,1 - < 1 | 19766-89-3 | 243-283-8 | | |

| Substance name | Hazard Class | H-phrases | Pictograms |
|-------------------------|-------------------------|------------|--------------|
| Ethanediol | Acute Tox. 4; STOT RE 2 | H302; H373 | GHS07; GHS08 |
| Sodium 2-ethylhexanoate | Repr. 2 | H361d | GHS08 |

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

SECTION 4 FIRST-AID MEASURES

4.1. Description of first aid measures

First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up.
- Eye contact : Wash out with (lukewarm) water. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor immediately if victim feels unwell.



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

Effects and symptoms

- Inhalation : May cause headache, dizziness and a feeling of sickness.
- Skin contact : May cause dry skin.
- Eye contact : May cause stinging of eyes and redness.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea. May cause a feeling of sickness, malaise, shortness of breath and lack of breathe.

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

- Note to physicians :
- General : Risk of metabolic acidosis.

SECTION 5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

- Suitable : Carbondioxide (CO₂). Alcohol resistant foam. Dry chemical. Water fog.
- Not suitable : None known.

5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : None known.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

5.3. Advice for firefighters

- Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

6.2. Environmental precautions

- Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike.
- Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

6.4. Reference to other sections

- Reference to other sections : See also section 8.

SECTION 7 HANDLING AND STORAGE



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7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Do not breathe vapour. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a cool, dry and well-ventilated place (< 35 °C). Keep away from oxidizing agents. Keep away from food, drink and animal feedingstuffs.

Recommended packaging : Keep only in the original container.

Non recommended packaging : Steel (except stainless steel).

7.3. Specific end use(s)

Use : Use only as directed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m³):

| Chemical name | Country | TWA 8 hour (mg/m ³) | STEL 15 min (mg/m ³) | Comments | Source |
|---------------|---------|---------------------------------|----------------------------------|----------|--------|
| Ethanediol | EC | 52 | 104 | | |
| Ethanediol | GB | 52 | 104 | Skin | |

Derived no-effect level (DNEL) for workers:

| Chemical name | Route of exposure | DNEL, short-term | | DNEL, long-term | |
|-------------------------|-------------------|------------------|-----------------|----------------------|----------------------|
| | | Local effect | Systemic effect | Local effect | Systemic effect |
| Ethanediol | Dermal | | | 35 mg/m ³ | 106 mg/kg bw/day |
| | Inhalation | | | | |
| Sodium 2-ethylhexanoate | Inhalation | | | | 14 mg/m ³ |
| | Dermal | | | | 2 mg/kg bw/day |

Derived no-effect level (DNEL) for consumers:

| Chemical name | Route of exposure | DNEL, short-term | | DNEL, long-term | |
|-------------------------|-------------------|------------------|-----------------|---------------------|-----------------------|
| | | Local effect | Systemic effect | Local effect | Systemic effect |
| Ethanediol | Dermal | | | 7 mg/m ³ | 53 mg/kg bw/day |
| | Inhalation | | | | |
| Sodium 2-ethylhexanoate | Inhalation | | | | 3,5 mg/m ³ |
| | Dermal | | | | 1 mg/kg bw/day |
| | Oral | | | | 1 mg/kg bw/day |

Predicted no-effect concentration (PNEC):

| Chemical name | Route of exposure | Fresh water | Marine water | |
|---------------|--------------------|-------------|--------------|------------|
| Ethanediol | Water | 10 mg/l | 1 mg/l | |
| | Sediment | 20,9 mg/kg | | |
| | Intermittent water | | | 10 mg/l |
| | STP | | | 199,5 mg/l |

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| | | | | |
|-------------------------|--------------------|-------------|--------------|--------------|
| Sodium 2-ethylhexanoate | Soil | | | 1,53 mg/kg |
| | Water | 0,36 mg/l | 0,036 mg/l | |
| | Sediment | 0,301 mg/kg | 0,0301 mg/kg | |
| | Intermittent water | | | 0,493 mg/l |
| | STP | | | 71,7 mg/l |
| | Soil | | | 0,0579 mg/kg |

8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals. See Directive 2004/37/EG on the protection of workers from the risks related to exposure to carcinogens or mutagens at work.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

Body protection : Use of specific protective industrial clothing is not required under normal conditions of use.

Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.

Hand protection : Under normal conditions of use specific gloves are not required. Wear suitable gloves in case of frequent or prolonged use and in case of large scale exposure in accordance with EN 374. Suitable material: nitril. \pm 0,5 mm. Indication of permeation breakthrough time: 6 hours.

Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | | |
|---|----------------------------|--|
| Appearance | : Liquid. | |
| Colour | : Green. | |
| Odour | : Characteristic. | |
| Odour threshold | : Not known. | |
| pH | : 7,8 | |
| Solubility in water | : Soluble. | |
| Partition coefficient (n-octanol/water) | : Not known. | Not measured. Not relevant for mixtures. |
| Flash point | : > 100 °C | Closed cup. |
| Flammability (solid, gas) | : Not applicable. | Liquid. See flashpoint. Contains < 1% flammable components and has a heat of combustion < 20 kJ/g. |
| Auto ignition temperature | : > 398 °C | |
| Boiling point/boiling range | : 100 °C | |
| Melting point/melting range | : -38 °C | |
| Explosive properties | : None known. | Does not contain explosives. |
| Explosion limits (% in air) | : Not known. | Lower explosion limit in air (%): 3,2 (Ethanediol) |
| | | Upper explosion limit in air (%): 15,3 (Ethanediol) |
| Oxidising properties | : Not applicable. | Does not contain oxidizing substances. |
| Decomposition temperature | : Not known. | |
| Viscosity (20°C) | : 1,3 mm ² /sec | (1 mm ² /sec = 1cSt) |
| Viscosity (40°C) | : Not relevant. | The product contains < 10% substances having an aspiration hazard. |
| Vapour pressure (20°C) | : 2300 Pa | |
| Vapour density (20°C) | : > 1 | (air = 1) |
| Relative density (20°C) | : 1,065 g/ml | |
| Evaporation rate | : Not known. | (n-butyl acetate = 1) |



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9.2. Other information

Other information : Not relevant.

SECTION 10 STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity : See sub-sections below.

10.2. Chemical stability

Stability : Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactivity : No other hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid : See section 7.

10.5. Incompatible materials

Materials to avoid : Keep away from oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

SECTION 11 TOXICOLOGICAL INFORMATION

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

No toxicological research has been carried out on this product.

Inhalation

- Acute toxicity : Calculated LC50: > 5,721 mg/l. Ingredients of unknown toxicity: < 1 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause headache, dizziness and a feeling of sickness.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Skin contact

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Prolonged contact may dry out and defat the skin. Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain skin sensitisers. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact



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Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.

Ingestion

Acute toxicity : May cause signs of intoxication and reduced consciousness after exposure to high concentrations. May cause a feeling of sickness, malaise, shortness of breath and lack of breathe. Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: 500 mg/kg.bw.

Aspiration : Not classified - based on available data, the classification criteria are not met. Does not contain substances with an aspiration hazard.

Chronic toxicity : Possibility of organ or organ system damage due to prolonged exposure. Target organ(s): Kidneys. Effect: May cause nephrolithiasis.

Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.

Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.

Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Reprotoxicity : Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

Toxicological information:

| Chemical name | Property | | Method | Test animal |
|------------------------------|------------------------------|-----------------|----------|-------------|
| Ethanediol | NOAEL (development, oral) | 250 mg/kg bw/d | | Rat |
| | LD50 (dermal) | 10600 mg/kg bw | | |
| | Mutagenicity | Not mutagenic | | |
| | Genotoxicity - in vitro | Not genotoxic | | |
| | Skin irritation | Non-irritant | | Rabbit |
| | Skin sensitisation | Not sensitizing | OECD 406 | Guinea pig |
| | NOEL (inhalation) | 71 mg/m3 | | |
| | LD50 (oral) | 7712 mg/kg bw | ----- | Rat |
| | Eye irritation | Non-irritant | | Rabbit |
| | LD50 (oral) - estimate | 500 mg/kg bw | | |
| | LC50 (inhalation) | > 2500 mg/m3 | ----- | Rat |
| | LC50 (inhalation) - estimate | > 5000 mg/m3 | | |
| | NOAEL (oral) | 150 mg/kg bw/d | OECD 452 | Rat |
| NOEL (carcinogenicity, oral) | 1000 mg/kg bw/d | | Rat | |

Other information : Ethanediol There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents. The estimated fatal dose for man is 100 millilitres (1/2 cup).

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Calculated LC50 (fish): 5798 mg/l. Calculated EC50 (waterflea): 224 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment. Not classified - based on available data, the classification criteria are not met.

12.2. Persistence and degradability

Persistence – degradability : No specific information known.

12.3. Bioaccumulative potential

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Bioaccumulative potential : No specific information known.

12.4. Mobility in soil

Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.

12.6. Other adverse effects

Other information : Not applicable.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.

Additional warning : None.

Waste water discharge : Do not dispose into the environment, in drains or in water courses.

European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.

Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

SECTION 14 TRANSPORT INFORMATION

14.1. UN number or ID number

UN nr. : None.

14.2. UN proper shipping name

Transport name : Not regulated.

14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

ADR/RID/ADN (road/railway/inland waterways)

Class : This product is not classified according to ADR/RID/ADN.

IMDG (sea)

Class : This product is not classified according to IMDG.

Marine pollutant : No

IATA (air)

Class : This product is not classified according to IATA.

14.6. Special precautions for user

Other information : Country specific variations may apply.

14.7. Maritime transport in bulk according to IMO instruments

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

SECTION 15 REGULATORY INFORMATION

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

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Community regulations : Regulation (EU) No 2015/830 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

15.2. Chemical safety assessment

Chemical safety assessment : Not applicable.

SECTION 16 OTHER INFORMATION

16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2015/830 dated 28 May 2015 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

| | |
|-----------|---|
| ADR | : European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | : Acute Toxicity Estimate |
| CLP | : Classification, Labeling & Packaging |
| CMR | : Carcinogenic, Mutagenic or toxic for Reproduction |
| EEC | : European Economic Community |
| GHS | : Globally Harmonized System of Classification and Labelling of Chemicals |
| IATA | : International Air Transport Association |
| IBC code | : International Bulk Chemical Code |
| IMDG | : International Maritime Dangerous Goods Code |
| LD50/LC50 | : Lethal Dose/Concentration for 50% of a population |
| MAC | : Maximum Allowable Concentration |
| MARPOL | : International Convention for the Prevention of Pollution From Ships |
| NO(A)EL | : No Observed (Adverse) Effect Level |
| OECD | : Organisation for Economic Co-operation and Development |
| PBT | : Persistent, Bioaccumulative and Toxic |
| PC | : Chemical product category |
| PT | : Product type |
| REACH | : Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | : Regulations concerning the International Carriage of Dangerous Goods by Rail |
| STP | : Sewage Treatment Plant |
| SU | : Sector of Use |
| TWA/STEL | : Time-Weighted Average/Short Term Exposure Limit |
| UN | : United Nations |
| VOC | : Volatile Organic Compounds |
| vPvB | : Very Persistent and Very Bioaccumulative |

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

| | |
|--------------|-----------------------|
| Acute Tox. 4 | : Calculation method. |
| STOT RE 2 | : Calculation method. |

Full text of hazard classes mentioned in section 3:

| | |
|--------------|---|
| Acute Tox. 4 | : Acute toxicity, category 4. |
| STOT RE 2 | : Specific target organ toxicity — repeated exposure, category 2. |

Full text of H-phrases mentioned in section 3:



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H302

Harmful if swallowed.

H361d

Suspected of damaging the unborn child.

H373

May cause damage to organs through prolonged or repeated exposure.

Number format

: "," used as decimal separator.

End of safety data sheet.

Print date

: 2022-04-01