



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 ISOPROPYL ALCOHOL
Product code : CRX540p, BT731
Chemical name : Propan-2-ol
Registration nr. : 01-2119457558-25
Annex VI no : 603-117-00-0

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

Application : SU22 Professional use. Institutional use. SU3 Industrial uses.

1.3. Details of the supplier of the safety data sheet

Supplier : Kemetyl Polska Sp. z o. o.
Al. Jerozolimskie 146, Budynek C
02-305 Warszawa, Poland
Telephone : +48 22 822 5390
E-mail : msds@kemetyl.com
Website : www.kemetyl.com

1.4. Emergency telephone number

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

PL - Telephone : +48 22 822 5390

(During office hours only)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):

(24/7)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification : Flammable liquid, category 2. Eye irritation, category 2. Specific target organ toxicity after single exposure, category 3.
Human health hazards : Causes serious eye irritation. May cause drowsiness or dizziness.
Physical/chemical hazards : Highly flammable. Keep away from sources of ignition — No smoking.
Environmental hazards : Not classified as dangerous according to statutory EC-Directives.

2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Danger

H- and P-phrases : H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.



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| | |
|-------------|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 vapour | Avoid breathing vapours. |
| P370+P378 | In case of fire: Use carbondioxide (CO ₂), alcohol resistant foam, dry chemical or water fog to extinguish. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |

Additional labelling (for all packaging sizes)

- : Propan-2-ol
- : EC number: 200-661-7

2.3. Other hazards

Other information : Not classified as PBT or vPvB.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Product description : Substance. Not classified as PBT or vPvB. Not included in the EU list with SVHC substances.

Information on substances:

| Substance name | Concentration (w/w) (%) | CAS nr. | EC number | Remark | REACH nr. |
|----------------|-------------------------|---------|-----------|--------|------------------|
| Propan-2-ol | > 99,7 | 67-63-0 | 200-661-7 | | 01-2119457558-25 |

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

| Substance name | Hazard Class | H-phrases | Pictograms |
|----------------|---------------------------------------|------------------|--------------|
| Propan-2-ol | Flam. Liq. 2; Eye Irrit. 2; STOT SE 3 | H225; H319; H336 | GHS02; GHS07 |

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.
- 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 if victim feels unwell.

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

Effects and symptoms

- Inhalation : May cause headache, drowsiness, dizziness and a feeling of sickness.
- Skin contact : May cause dry skin.
- Eye contact : Irritant. May cause redness and pain.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea.

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

- Note to physicians :
- General : Call a poison control centre for guidance.



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SECTION 5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

- Suitable : Carbondioxide (CO2). Alcohol resistant foam. Dry chemical. Water fog.
Not suitable : Water jet.

5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : The vapour is heavier than air, spreads along the ground and distant ignition is possible.
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. Keep away from sources of ignition — No smoking. 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

7.1. Precautions for safe handling

- Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Do not breathe vapour. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities



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

Recommended packaging : Keep only in the original container.

Non recommended packaging : None known.

7.3. Specific end use(s)

Use : Use only as directed.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Workplace exposure limits (mg/m³):

| Chemical name | Country | TWA 8 hour (mg/m ³) | STEL 15 min (mg/m ³) | Comments | Source |
|---------------|---------|---------------------------------|----------------------------------|----------|--------|
| Propan-2-ol | GB | 999 | 1250 | - | |

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 |
| Propan-2-ol | Dermal Inhalation | | | | 888 mg/kg bw/day 500 mg/m ³ |

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 |
| Propan-2-ol | Dermal Inhalation Oral | | | | 319 mg/kg bw/day 89 mg/m ³ 26 mg/kg bw/day |

Predicted no-effect concentration (PNEC):

| Chemical name | Route of exposure | Fresh water | Marine water | |
|---------------|--------------------|-------------|--------------|----------------|
| Propan-2-ol | Water | 140,9 mg/l | 140,9 mg/l | |
| | Sediment | 552 mg/kg | 552 mg/kg | |
| | Intermittent water | | | 140,9 mg/l |
| | STP | | | 2251 mg/l |
| | Soil | | | 28 mg/kg |
| | Oral | | | 160 mg/kg food |

8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.

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.



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Hand protection : Under normal conditions of use specific gloves are not required.
Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166, 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 : Colourless.
Odour : Characteristic.
Odour threshold : Not known.
pH : Not applicable. Almost waterfree product.
Solubility in water : Soluble.
Partition coefficient (n-octanol/water) : 0,05
Flash point : 12 °C
Flammability (solid, gas) : Not applicable. Liquid. See flashpoint.
Auto ignition temperature : 425 °C
Boiling point/boiling range : 82 °C
Melting point/melting range : -88 °C
Explosive properties : Not an explosive.
Explosion limits (% in air) : 2 - 12
Oxidising properties : Not oxidizing.
Decomposition temperature : Not applicable.
Viscosity (20°C) : 2,5 mm²/sec (1 mm²/sec = 1cSt)
Viscosity (40°C) : < 7 mm²/sec
Vapour pressure (20°C) : 4400 Pa
Vapour density (20°C) : 2,1 (air = 1)
Relative density (20°C) : 0,78 g/ml
Evaporation rate : 1,5 (n-butyl acetate = 1)

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.



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10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

- Acute toxicity : 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 : Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.

Skin contact

- Acute toxicity : 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 : Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.

Eye contact

- Corrosion/irritation : Irritant.

Ingestion

- Acute toxicity : ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Aspiration : Not expected to be an aspiration hazard. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.
- Carcinogenicity : Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Not expected to be mutagenic. 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 classified - based on available data, the classification criteria are not met.

Toxicological information:

| Chemical name | Property | | Method | Test animal |
|---------------|------------------------------|-------------------|----------|-------------|
| Propan-2-ol | LD50 (oral) | 4396 mg/kg bw | ---- | Rat |
| | LD50 (dermal) | 12800 mg/kg bw | ---- | Rat |
| | LC50 (inhalation) | 46600 mg/m3 | ---- | Rat |
| | Skin irritation | Slightly irritant | OECD 404 | Rabbit |
| | Eye irritation | Irritant | OECD 405 | Rabbit |
| | NOAEL (fertility, oral) | 407 mg/kg bw/d | | Rat |
| | NOAEL (development, oral) | 400 mg/kg bw/d | | Rat |
| | NOEL (carcinogenicity, oral) | Not carcinogenic | OECD 416 | Rat |
| | Skin sensitisation | Not sensitizing | OECD 406 | Guinea pig |



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| | | | | |
|--|------------------------------|----------------|----------|-------|
| | Mutagenicity | Negative | OECD 471 | |
| | NOAEL (inhalation) | 12500 mg/m3 | OECD 451 | Rat |
| | Genotoxicity - in vivo | Not genotoxic | OECD 474 | Mouse |
| | NOEL (carcinogenicity, inh.) | 12500 mg/m3 | | Mouse |
| | Genotoxicity - in vitro | Not genotoxic | OECD 476 | |
| | NOAEL (oral) | 870 mg/kg bw/d | ----- | Rat |

SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity : Not classified - based on available data, the classification criteria are not met.

12.2. Persistence and degradability

Persistence – degradability : Ultimate biodegradability (%): 95

12.3. Bioaccumulative potential

Bioaccumulative potential : Fulfills the very bioaccumulative criterion according to Regulation (EC) No 1907/2006 (REACH).
Classified as very bioaccumulative (vB). BCF: 3 l/kg.bw

12.4. Mobility in soil

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

12.5. Results of PBT and vPvB ass

PBT/vPvB assessment : Not classified as PBT or vPvB.

12.6. Other adverse effects

Other information : Not applicable.

Ecological information:

| Chemical name | Property | | Method | Test animal |
|---------------|-------------------------------------|-------------|------------|-------------------------|
| Propan-2-ol | LC50 (fish) | 9640 mg/l | ----- | Pimephales promelas |
| | EC50 (waterflea) | 13299 mg/l | | Daphnia magna |
| | NOEC (waterflea) - chronic | 30 mg/l.d | | Daphnia magna |
| | IC50 (algae) | > 1000 mg/l | | Scenedesmus subspicatus |
| | Ultimate aerobic biodegradation (%) | 95 % | OECD 301 E | |
| | Log P(ow) | 0,0500 | | |
| | BCF | 3 | | |

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

Additional warning : Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.

Waste water discharge : Do not dispose into the environment, in drains or in water courses. Avoid discharge of waste water arising from tank cleaning to the environment.



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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

UN nr. : UN 1219

14.2. UN proper shipping name

Transport name : ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport name (IMDG, IATA) : ISOPROPANOL (ISOPROPYL ALCOHOL)

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

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

Class : 3
Classification code : F1
Packaging group : II
Danger label : 3
Tunnel restriction code : D/E



Other information : Not intended for carriage by tank-vessels on inland waterways.

IMDG (sea)

Class : 3
Packaging group : II
EmS (fire / spill) : F - E / S - D
Marine pollutant : No

IATA (air)

Class : 3

14.6. Special precautions for user

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

Product name : Shell Isopropyl Alcohol
Date of issue : 05-12-2018

Replaces issue dated : ---

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

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 available.

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:

| | |
|--------------|--------------------------|
| Flam. Liq. 2 | : On basis of test data. |
| Eye Irrit. 2 | : On basis of test data. |
| STOT SE 3 | : On basis of test data. |

Full text of hazard classes mentioned in section 3:



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Flam. Liq. 2 : Flammable liquid, category 2.
Eye Irrit. 2 : Eye irritation, category 2.
STOT SE 3 : Specific target organ toxicity after single exposure, category 3.

Full text of H-phrases mentioned in section 3:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Number format : "," used as decimal separator.

End of safety data sheet.

Print date : 07-12-2018