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 DE-ICER
Product code : CRX492, 09727020; 09727021; 09727025

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

Application : SU21 Consumer product. PC0 Other. Car maintenance. PC4 De-icer.

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):
National Poisons Information Service +44 344 892 0111 (24/7)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification (1272/2008/EC) : Flammable liquid, category 3. Specific target organ toxicity — repeated exposure, category 2.

Human health hazards : May cause damage to kidneys through prolonged or repeated exposure.
Physical/chemical hazards : Flammable.
Environmental hazards : Not classified as dangerous according to statutory EC-Directives.
Other information : Do not breathe spray. Use only in well-ventilated areas.

2.2. Label elements

Label elements (1272/2008/EC):
Hazard pictograms :

Signal word : Warning

H- and P-phrases :

H226	Flammable liquid and vapour.
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.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 aerosol	Do not breathe spray.
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:

Hazard pictograms :

Signal word : Warning

H- and P-phrases :

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 aerosol	Do not breathe spray.
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.
Ethanol	25 - < 50	64-17-5	200-578-6		01-2119457610-43
Ethanediol	10 - < 25	107-21-1	203-473-3		01-2119456816-28
Propan-2-ol	0,1 - < 1	67-63-0	200-661-7		01-2119457558-25
Butanone	0,1 - < 1	78-93-3	201-159-0		01-2119457290-43

Substance name	Hazard Class	H-phrases	Pictograms	
Ethanol	Flam. Liq. 2; Eye Irrit. 2	H225; H319	GHS02; GHS07	H319 : C >= 50 %
Ethanediol	Acute Tox. 4; STOT RE 2	H302; H373	GHS07; GHS08	
Propan-2-ol	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	H225; H319; H336	GHS02; GHS07	
Butanone	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	H225; H319; H336; EUH066	GHS02; GHS07	

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.

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

Effects and symptoms

Inhalation	:	May cause headache, dizziness and a feeling of sickness. May cause irritation to respiratory airways and coughing.
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.

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	:	Water jet.

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. 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 spray. 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. Protect from sunlight. 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. NOT to be used inside a vehicle - For external use only.

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/m3)	STEL 15 min (mg/m3)	Comments	Source
Ethanol	GB	1920	-	-	
Ethanol		260	1900	-	MAC: NL
Ethanediol	GB	52	104	Skin	
Ethanediol	EC	52	104	Skin	
Propan-2-ol	GB	999	1250	-	
Butanone	GB	600	899	Skin; BMGV	
Butanone	EC	600	900	-	

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
Ethanol	Dermal				343 mg/kg bw/day
	Inhalation	1900 mg/m3			950 mg/m3
Ethanediol	Dermal				106 mg/kg bw/day

	Inhalation			35 mg/m3	
Propan-2-ol	Dermal				888 mg/kg bw/day
	Inhalation				500 mg/m3
Butanone	Dermal				1161 mg/kg bw/day
	Inhalation				600 mg/m3

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
Ethanol	Dermal				206 mg/kg bw/day
	Inhalation	950 mg/m3			114 mg/m3
	Oral				87 mg/kg bw/day
Ethanediol	Dermal				53 mg/kg bw/day
	Inhalation			7 mg/m3	
Propan-2-ol	Dermal				319 mg/kg bw/day
	Inhalation				89 mg/m3
	Oral				26 mg/kg bw/day
Butanone	Dermal				412 mg/kg bw/day
	Inhalation				106 mg/m3
	Oral				31 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Ethanol	Water	0,96 mg/l	0,79 mg/l	
	Sediment	3,6 mg/kg	2,9 mg/kg	
	Intermittent water			2,75 mg/l
	STP			580 mg/l
	Soil			0,63 mg/kg
	Oral			0,72 mg/kg food
Ethanediol	Water	10 mg/l	1 mg/l	
	Sediment	20,9 mg/kg		
	Intermittent water			10 mg/l
	STP			199,5 mg/l
	Soil			1,53 mg/kg
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
Butanone	Water	55,8 mg/l	55,8 mg/l	
	Sediment	284,74 mg/kg	284,7 mg/kg	
	Intermittent water			55,8 mg/l
	STP			709 mg/l
	Soil			22,5 mg/kg
	Oral			1000 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.
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. ± 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	:	Blue.	
Odour	:	Characteristic.	
Odour threshold	:	Not known.	
pH	:	6,75	
Solubility in water	:	Soluble.	
Partition coefficient (n-octanol/water)	:	Not applicable.	
Flash point	:	25 °C	Closed cup.
Flammability (solid, gas)	:	Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	:	> 304 °C	
Boiling point/boiling range	:	78 °C	
Melting point/melting range	:	-19 °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 (%): 19 Ethanol
Oxidising properties	:	Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	:	Not applicable.	
Viscosity (20°C)	:	1 mm2/sec	(1 mm2/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)	:	0,96 g/ml	
Evaporation rate	:	< 1	(n-butyl acetate = 1)

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 toxicological effects

No toxicological research has been carried out on this product.

Inhalation

Acute toxicity : Calculated LC50: > 9,269 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 : May cause irritation to respiratory airways and coughing. 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 : 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

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

Ingestion

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. May cause hampered eyesight.

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 : 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 expected to be reprotoxic. 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): 5385 mg/l. Calculated EC50 (waterflea): 380 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. The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents.

12.3. Bioaccumulative potential

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.

12.5. Results of PBT and vPvB ass

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

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	:	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.
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 1170

14.2. UN proper shipping name

Transport name	:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport name (IMDG, IATA)	:	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

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	:	III
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	:	III
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

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 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:

Flam. Liq. 3	:	On basis of test data.

STOT RE 2	:	Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 2	:	Flammable liquid, category 2.
Acute Tox. 4	:	Acute toxicity, category 4.
Eye Irrit. 2	:	Eye irritation, category 2.
STOT SE 3	:	Specific target organ toxicity after single exposure, category 3.
STOT RE 2	:	Specific target organ toxicity — repeated exposure, category 2.

Full text of H-phrases mentioned in section 3:

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.

Number format	:	"," used as decimal separator.

End of safety data sheet.

Print date	:	08-08-2019