SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Supercedes date 17-Aug-2023 **Revision date** 11-Dec-2025 **Revision Number** 1.01

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) PCA005

Product Name Rubber Solution Glue

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Adhesives

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Manufacturer
Cytocell Ltd., Oxford Gene Technology
418 Cambridge Science Park,
Milton Road,
Cambridge
CB4 0PZ, United Kingdom
T: +44 (0)1223 294048
F: +44 (0)1223 294986
probes@cytocell.com
http://www.ogt.com

Supplier
Sysmex Europe SE
Deelböge 19D
22297 Hamburg
Germany
T: +49 (40) 527 26 0

For further information, please contact
E-mail address probes@cytocell.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1223 294048 (Monday - Friday, 9am - 5pm)

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids	Category 2 - (H225)

- (H315)

Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Narcotic effects	

Aspiration hazard	Category 1 - (H304)
Hazardous to the aquatic environment - acute	Category 1 - (H400)
Hazardous to the aquatic environment - chronic	Category 1 - (H410)

2.2. Label elements

Contains n-Heptane

Signal word
Danger

Hazard statements
H225 - Highly flammable liquid and vapour.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H304 - May be fatal if swallowed and enters airways.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 - Do NOT induce vomiting.
P501 - Dispose of contents/containers in accordance with local regulations.

100 % of the mixture consists of ingredient(s) of unknown acute toxicity.

2.3. Other hazards

Other hazards The product does not contain any substance(s) classified as PBT or vPvB.

PBT or vPvB properties None known.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No. (Index No.)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
n-Heptane 142-82-5	80-100	No data available	205-563-8 (601-008-00-2)	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304)	-	-	-	C

				Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)				
Ethanol 64-17-5	10 - 30	No data available	200-578-6 (603-002-00-5)	Flam. Liq. 2 (H225)	-	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
n-Heptane 142-82-5	No data available	3000	29.3193	No data available	No data available
Ethanol 64-17-5	7060	No data available	116.9 133.8	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical attention. Delayed pulmonary edema may occur.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

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

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Effects of Exposure	None known.

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

Note to doctors	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Alcohol resistant foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Highly flammable liquid and vapour. Vapours are heavier than air and may spread along floors. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Carbon oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand

or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Use personal protective equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Store away from other materials.

Storage class (TRGS 510) LGK 3.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union
n-Heptane 142-82-5	TWA: 500 ppm; TWA: 2085 mg/m³;

Chemical name	Austria	Belgium	Bulgaria	Croatia
n-Heptane 142-82-5	TWA-TMW: 500 ppm; TWA-TMW: 2000 mg/m³;	TWA: 400 ppm; TWA: 1664 mg/m³; STEL: 500 ppm;	TWA: 1600 mg/m³;	TWA-GVI: 500 ppm; TWA-GVI: 2085 mg/m³; Sk

	STEL-KZGW: 2000 ppm (4 X 15 min); STEL-KZGW: 8000 mg/m³ (4 X 15 min);	STEL: 2085 mg/m³;		
Ethanol 64-17-5	TWA-TMW: 1000 ppm; TWA-TMW: 1900 mg/m³; STEL-KZGW: 2000 ppm (3 X 60 min); STEL-KZGW: 3800 mg/m³ (3 X 60 min);	TWA: 1000 ppm; TWA: 1907 mg/m³;	TWA: 1000 mg/m³;	TWA-GVI: 1000 ppm; TWA-GVI: 1900 mg/m³;
Chemical name	Cyprus	Czech Republic	Denmark	Estonia
n-Heptane 142-82-5	TWA: 500 ppm; TWA: 2085 mg/m³;	TWA: 1000 mg/m³; Ceiling: 2000 mg/m³;	TWA: 200 ppm; TWA: 820 mg/m³; STEL: 400 ppm; STEL: 1640 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³;
Ethanol 64-17-5	-	TWA: 1000 mg/m³; Ceiling: 3000 mg/m³;	TWA: 1000 ppm; TWA: 1900 mg/m³; STEL: 2000 ppm; STEL: 3800 mg/m³;	TWA: 500 ppm; TWA: 1000 mg/m³; STEL: 1000 ppm; STEL: 1900 mg/m³;
Chemical name	Finland	France	Germany TRGS	Germany DFG
n-Heptane 142-82-5	TWA: 300 ppm; TWA: 1200 mg/m³; STEL: 500 ppm; STEL: 2100 mg/m³;	TWA-VME (restrictif): 400 ppm; TWA-VME (restrictif): 1668 mg/m³; STEL-VLCT (restrictif): 500 ppm; STEL-VLCT (restrictif): 2085 mg/m³;	TWA-AGW; 500 ppm (1(I)); TWA-AGW; 2100 mg/m³ (1(I));	TWA-MAK: 500 ppm; I(1); TWA-MAK: 2100 mg/m³; I(1);
Ethanol 64-17-5	TWA: 200 ppm; TWA: 380 mg/m³; STEL: 800 ppm; STEL: 1520 mg/m³;	TWA-VME: 1000 ppm; TWA-VME: 1900 mg/m³; STEL-VLCT: 5000 ppm; STEL-VLCT: 9500 mg/m³;	TWA-AGW; 200 ppm (4(II)); TWA-AGW; 380 mg/m³ (4(II));	TWA-MAK: 200 ppm; II(4); TWA-MAK: 380 mg/m³; II(4);
Chemical name	Greece	Hungary	Italy MDLPS	Italy AIDII
n-Heptane 142-82-5	TWA: 500 ppm; TWA: 2000 mg/m³; STEL: 500 ppm; STEL: 2000 mg/m³;	TWA-AK: 2000 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³;	TWA: 400 ppm; TWA: 1639 mg/m³; STEL (REL): 500 ppm; STEL (REL): 2049 mg/m³;
Ethanol 64-17-5	TWA: 1000 ppm; TWA: 1900 mg/m³;	TWA-AK: 1000 ppm; TWA-AK: 1900 mg/m³; STEL-CK: 2000 ppm; STEL-CK: 3800 mg/m³;	-	STEL (REL): 1000 ppm; STEL (REL): 1884 mg/m³;
Chemical name	Ireland	Latvia	Lithuania	Luxembourg
n-Heptane 142-82-5	TWA: 500 ppm; TWA: 2085 mg/m³; STEL: 1500 ppm (calculated); STEL: 6255 mg/m³ (calculated);	TWA: 85 ppm; TWA: 350 mg/m³; STEL: 500 ppm; STEL: 2085 mg/m³;	TWA-IPRD: 500 ppm; TWA-IPRD: 2085 mg/m³; STEL-TPRD: 750 ppm; STEL-TPRD: 3128 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³;
Ethanol 64-17-5	STEL: 1000 ppm;	TWA: 1000 mg/m³;	TWA-IPRD: 500 ppm; TWA-IPRD: 1000 mg/m³; STEL-TPRD: 1000 ppm; STEL-TPRD: 1900 mg/m³;	-
Chemical name	Malta	Netherlands	Norway	Poland
n-Heptane	TWA: 500 ppm;	TWA: 288 ppm;	TWA: 200 ppm;	TWA-NDS: 1200 mg/m³;

142-82-5	TWA: 2085 mg/m³;	TWA: 1200 mg/m³; STEL: 384 ppm; STEL: 1600 mg/m³;	TWA: 800 mg/m³; STEL: 250 ppm (value calculated); STEL: 1000 mg/m³ (value calculated);	STEL-NDSCh: 2000 mg/m³;
Ethanol 64-17-5	-	TWA: 137 ppm; TWA: 260 mg/m³; STEL: 1000 ppm; STEL: 1900 mg/m³; Sk	TWA: 500 ppm; TWA: 950 mg/m³; STEL: 625 ppm (value calculated); STEL: 1187.5 mg/m³ (value calculated);	TWA-NDS: 1900 mg/m³;

Chemical name	Portugal	Romania	Slovakia	Slovenia
n-Heptane 142-82-5	TWA (VLE-MP): 500 ppm; TWA (VLE-MP): 2085 mg/m³; STEL (VLE-CD): 500 ppm;	TWA: 500 ppm; TWA: 2085 mg/m³; STEL: 1000 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³; STEL: 500 ppm; STEL: 2085 mg/m³;
Ethanol 64-17-5	STEL (VLE-CD): 1000 ppm;	TWA: 1000 ppm; TWA: 1900 mg/m³; STEL: 5000 ppm; STEL: 9500 mg/m³;	TWA: 500 ppm; TWA: 960 mg/m³; Ceiling: 1920 mg/m³;	TWA: 960 mg/m³; TWA: 500 ppm; STEL: 1000 ppm; STEL: 1920 mg/m³;

Chemical name	Spain	Sweden	Switzerland	United Kingdom
n-Heptane 142-82-5	TWA-(VLA-ED): 500 ppm; TWA-(VLA-ED): 2085 mg/m³;	TLV-NGV: 200 ppm; TLV-NGV: 800 mg/m³; STEL (Vägledande KGV): 300 ppm; STEL (Vägledande KGV): 1200 mg/m³;	TWA-MAK: 400 ppm; TWA-MAK: 1600 mg/m³; STEL-KZGW: 400 ppm; STEL-KZGW: 1600 mg/m³;	TWA: 500 ppm; TWA: 2085 mg/m³; STEL: 1500 ppm; STEL: 6255 mg/m³;
Ethanol 64-17-5	STEL (VLA-EC): 1000 ppm; STEL (VLA-EC): 1910 mg/m³;	TLV-NGV: 500 ppm; TLV-NGV: 1000 mg/m³; STEL (Vägledande KGV): 1000 ppm; STEL (Vägledande KGV): 1900 mg/m³;	TWA-MAK: 500 ppm; TWA-MAK: 960 mg/m³; STEL-KZGW: 1000 ppm; STEL-KZGW: 1920 mg/m³;	TWA: 1000 ppm; TWA: 1920 mg/m³; STEL: 3000 ppm; STEL: 5760 mg/m³;

Biological occupational exposure limits

Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
n-Heptane 142-82-5	-	-	-	250 µg/L (urine - Heptan-2,5-dione end of exposure or shift) 250 µg/L - BAT (end of exposure or end of shift) urine	250 µg/L (urine - Heptan-2,5-dione end of exposure or shift)

Chemical name	Slovenia	Spain	Switzerland	United Kingdom
n-Heptane 142-82-5	-	-	200 µg/L (urine - Heptane-2 5-dione end of shift)	-

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
n-Heptane 142-82-5	-	300 mg/kg bw/day [4] [6]	2085 mg/m³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
n-Heptane 142-82-5	149 mg/kg bw/day [4] [6]	-	447 mg/m³ [4] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC) No information available.

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Ethanol 64-17-5	0.38 g/kg food 0.96 mg/L	2.75 mg/L	0.38 g/kg food 0.79 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Ethanol 64-17-5	3.6 mg/kg sediment dw	2.9 mg/kg sediment dw	580 mg/L	0.63 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls
Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection
Tight sealing safety goggles. Eye protection must conform to standard EN 166.

Hand protection
Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection
Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Colour	Yellowish
Odour	Petroleum
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point		No data available
Boiling point or initial boiling point and boiling range		No data available
Flammability		No data available
Lower and upper explosion limit/flammability limit		
Lower explosion limit	1.1 %	
Upper explosion limit	6.7 %	
Flash point	-4 °C	CC (closed cup)
Autoignition temperature		No data available
Decomposition temperature		No data available
SADT (°C)		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity	400 - 600 cP	@ 20 °C
Water solubility	Immiscible in water	
Solubility		No data available
Partition coefficient n-octanol/water (log value)		No data available
Vapour pressure	98760 mmHg	
Density and/or relative density	0.722	
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

Molecular weight	No information available
VOC content	660 g/L 660
Softening point	No information available

9.2.1. Information with regards to physical hazard classes

Explosives	
Explosive properties	No information available
Oxidising properties	No information available

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Protect from direct sunlight.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity Based on available data, the classification criteria are not met.

Numerical measures of toxicity Based on available data, the classification criteria are not met.
The following ATE values have been calculated for the mixture:

ATEmix (oral)	7,060.00 mg/kg
ATEmix (dermal)	3,333.30 mg/kg
ATEmix (inhalation-dust/mist)	1,169.00 mg/L

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
n-Heptane	-	= 3000 mg/kg (Rabbit)	> 29.29 mg/L (Rat) 4 h
Ethanol	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disruption for human health Based on available data, the classification criteria are not met.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Fish	Crustacea	Algae/aquatic plants	Toxicity to microorganisms
n-Heptane	LC50: =375.0mg/L (96h, Cichlid fish)	-	-	-
Ethanol	LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas) LC50: 13400 - 15100mg/L (96h, Pimephales promelas)	LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)	-	-

Chemical name	Earthworm	Avian	Honeybees
Ethanol	Acute Toxicity: LC50 0.1 - 1 mg/cm2 (Eisenia foetida, 48 h filter paper)	-	-

12.2. Persistence and degradability No information available.

12.3. Bioaccumulative potential

Chemical name	Partition coefficient	Bioconcentration factor (BCF)	Trophic magnification factor (TMF)
n-Heptane	4.66	-	-
Ethanol	-0.35	-	-

12.4. Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment No information available.

Chemical name	PBT and vPvB assessment
n-Heptane	Not PBT/vPvB
Ethanol	Not PBT/vPvB

12.6. Endocrine disrupting properties Based on available data, the classification criteria are not met.

12.7. Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IATA

14.1 UN number or ID number UN1133
14.2 UN proper shipping name Adhesives solution
14.3 Transport hazard class(es) 3

14.4 Packing group	II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	A3
ERG Code	3L
Description	UN1133, Adhesives solution, 3, II

IMDG

14.1 UN number or ID number	UN1133
14.2 UN proper shipping name	ADHESIVES SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None
EmS-No.	F-E, S-D
Description	UN1133, ADHESIVES SOLUTION (n-Heptane), 3, II, (-4°C C.C.), Marine pollutant
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1133
14.2 UN proper shipping name	ADHESIVES SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, ADHESIVES SOLUTION, 3, II, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None
Classification code	F1

ADR

14.1 UN number or ID number	UN1133
14.2 UN proper shipping name	ADHESIVES SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, ADHESIVES SOLUTION, 3, II, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	640C
Classification code	F1
Tunnel restriction code	(D/E)

ADN

14.1 UN number or ID number	UN1133
14.2 UN proper shipping name	ADHESIVES SOLUTION
14.3 Transport hazard class(es)	3
14.4 Packing group	II
Description	UN1133, ADHESIVES SOLUTION, 3, II, Environmentally Hazardous
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
Special Provisions	640C
Classification code	F1
Ventilation	VE01
Equipment Requirements	PP, EX, A

SECTION 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
n-Heptane 142-82-5	RG 84
Ethanol 64-17-5	RG 84

Water hazard class (WGK) obviously hazardous to water (WGK 2)

Chemical Prohibition Ordinance (ChemVerbotsV)
Not applicable.

TRGS 905 Not applicable

Netherlands

Carcinogenic, mutagenic and reproductive toxic effects

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Ethanol 64-17-5	Present	-	Fertility Category 1A Development Category 1A Can be harmful via breastfeeding

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable
Storage of Hazardous Material Not applicable
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Not applicable
Major Accidents Ordinance SR 814.012 Not applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
n-Heptane 142-82-5	75	-

Persistent Organic Pollutants
Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)
P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS
E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 2024/590

Not applicable.

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Ethanol 64-17-5	Product-type 1: Human hygiene Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area

Explosives Precursors Marketing and Use (2019/1148)
Not applicable.

International Inventories
Contact supplier for inventory compliance status
TSCA

15.2. Chemical safety assessment

Chemical Safety Report No information available.

SECTION 16: Other information

Full text of any hazard and/or precautionary statements referred to under Sections 2-15
H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves, protective clothing, eye protection and face protection
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P321 - Specific treatment (see supplemental first aid instructions on this label)
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P261 - Avoid breathing dust, fume, gas, mist, vapors and spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable
P273 - Avoid release to the environment
P391 - Collect spillage
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P240 - Ground and bond container and receiving equipment
P241 - Use explosion-proof electrical, ventilating and lighting equipment
P242 - Use non-sparking tools
P243 - Take action to prevent static discharges
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P370 + P378 - In case of fire: Use .? to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

P501 - Dispose of contents/container to industrial incineration plant

Key or legend to abbreviations and acronyms used in the safety data sheet
List may include phrases which are not applicable to this product

ACGIH	American Conference of Governmental Industrial Hygienists
AIDII	Italian Association of Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DFG	German Research Foundation
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
ECHA	European Chemicals Agency
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	U.S. Environmental Protection Agency
EWC	European Waste Codes
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organisation
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organisation for Standardisation
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MAK	Maximum Concentration at the Workplace
MAL	Measuring Technical Hygienic Air Needs
MARPOL	International Convention for the Prevention of Pollution from Ships
MDLPS	Ministry of Labour and Social Policy
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment

QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern
TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TRGS	Technical Rule for Hazardous Substances
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
C	Carcinogen
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitiser
RS	Respiratory Sensitiser
S	Sensitiser
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method

Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable liquids	On basis of test data

Key literature references and sources for data used to compile the SDS
U.S. Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
U.S. Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
International Organization for Economic Co-operation and Development (OECD) Environment, Health, and Safety Publications
International Organization for Economic Co-operation and Development (OECD) High Production Volume Chemicals Program
International Organization for Economic Co-operation and Development (OECD) Screening Information Data Set
United Nations World Health Organization (WHO)

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End of Safety Data Sheet