SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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

1.1 Product identifier

Trade name: **Isopropyl alcohol**
Chemical name: propan-2-ol; isopropyl alcohol; isopropanol
Index number: 603-117-00-0
REACH number: 01-2119457558-25-XXXX

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

Relevant identified uses: isopropyl alcohol is a mild organic solvent.
Uses advised against: no uses advised against have been identified.

1.3 Details of the supplier of the safety data sheet

Distributor: **Przedsiębiorstwo Produkcyjno-Handlowe CERKAMED Wojciech Pawłowski**
Address: ul. Kwiatkowskiego 1, 37-450 Stalowa Wola, Poland
Telephone number: +48 15 842 35 85
E-mail address for a competent person responsible for SDS: agnieszka.walilko@cerkamed.pl

1.4 Emergency telephone number

112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Flam. Liq. 2 H225, **Eye Irrit. 2** H319, **STOT SE 3** H336

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

2.2 Label elements

Hazard pictograms and signal words



DANGER

Hazard statements

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

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container to properly labeled waste containers in accordance with national legislation.

2.3 Other hazards

The substance does not meet the criteria for classification as PBT or vPvB in accordance with Annex XIII of the REACH Regulation. The substance has not been included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or as substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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Section 3: Composition/information on ingredients

3.1 Substances

Chemical name:	propan-2-ol; isopropyl alcohol; isopropanol
Percentage range:	min. 99 %
CAS number:	67-63-0
EC number:	200-661-7
Index number:	603-117-00-0
REACH number:	01-2119457558-25-XXXX

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: take off the contaminated clothing immediately. Wash a contaminated skin with plenty of soap and water for at least 10 min. Consult a doctor, if disturbing symptoms occur.

Eye contact: protect non-irritated eye, remove contact lenses. Wash out an contaminated eyes thoroughly with plenty of water for 15 min. Avoid strong stream of water - the risk of corneal damage. Consult an ophthalmologist, if disturbing symptoms occur.

Ingestion: do not induce vomiting. Rinse mouth with water. Never give anything to drink to an unconscious person. Consult a doctor, show packaging or label.

Inhalation: remove the victim to fresh air, keep warm and calm. In case of breathing difficulties trained personnel should give the victim oxygen. Consult a doctor if disturbing symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: possible redness, burning, dryness, degreasing.

Eye contact: redness, tearing, burning, pain, irritation.

Ingestion: possible stomach pain, nausea, vomiting, diarrhea.

Inhalation: in case of high vapours concentration irritation of the respiratory tract, cough, drowsiness, headaches and dizziness are possible.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: carbon dioxide, alcohol-resistant foam, extinguishing powders, water spray.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2 Special hazards arising from the substance or mixture

During the fire, may produce harmful gases consisting of eg. carbon oxides and other hazardous thermal decomposition products. Do not inhale combustion products, may cause health risk.

5.3 Advice for firefighters

Flammable liquid and vapour. Vapours may form explosive mixtures with air. Personal protection typical in case of fire. Do not stay in the fire zone without protective clothing resistant to chemicals and self-contained breathing apparatus. In case of fire cool endangered containers with water fog from safe distance. Do not let the product to enter sewage system, surface water and ground water. Collect used the extinguishing media.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that the effects of breakdown are removed only by trained personnel. Wear personal protective equipment. In case of large spills, isolate the exposed area. Do not touch or pass over spilled material. Avoid eyes and skin contamination. Do not inhale vapours of the product. Ensure adequate ventilation. Remove all sources of ignition, prohibit smoking.

6.2 Environmental precautions

Do not enter into the sewage system, surface water and groundwater. In case of a release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Large spillage isolate and pump away the collected liquid. Absorb small spillage with nonflammable liquid-binding materials (e.g. sand, universal binding agent) and place in labeled containers. Treat the collected material as a waste. Clean and ventilate the contaminated place.

6.4 Reference to other sections

Personal protective equipment – see section 8. Appropriate conduct with waste product – see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Wear personal protective equipment. Avoid eyes and skin contamination. Do not inhale vapours of the product. Do not eat, drink or smoke while working. Before break and after work wash hands carefully. Ensure adequate general and / or local ventilation. Use non-sparking tools, keep ignition sources away.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers only in original, tightly closed containers in a dry, cool and well-ventilated place. Avoid direct expose to sunlight and high temperatures. Keep away from food, beverages or feed for animals and from incompatible materials (see subsection 10.5). After opening, seal the container and store it in an upright position to avoid leakage.

7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Product does not contain components with occupational exposure limit values established on the European Union level.

Legal Basis: 91/322/EEC as amended, 98/24/EC as amended, 2000/39/EC as amended, 2004/37/EC as amended.

Please check also any national occupational exposure limit values in your country.

DNEL values

Exposure route	Exposure scenario	DNEL (worker)
skin	Long-term	888 mg/kg
inhalation	Long-term	500 mg/m^3
Exposure route	**Exposure scenario**	**DNEL (consumers)**
skin	Long-term	319 mg/kg
inhalation	Long-term	89 mg/m^3
oral	Long-term	26 mg/kg

PNEC values

fresh water	140,9 mg/l
marine water	140,9 mg/l
intermittent release	140,9 mg/l
STP	2251 mg/l
fresh water sediment	552 mg/kg dry weight
marine water sediment	552 mg/kg dry weight
soil	28 mg/kg dry weight
oral	160 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Take off contaminated clothing and wash it before reuse. Provide effective general and/or local ventilation in the workplace. Avoid contact with skin and eyes. Do not inhale vapours. If during work processes there is a risk of clothing fire on the employee - no more than 20 m in a horizontal line from the stations where these processes are performed, emergency showers (safety showers) for washing the whole body and separate showers (showers) for eye washing should be installed.

Individual protection measures, such as personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand and skin protection

Use protective gloves resistant to the product in accordance with EN 374. Recommended material for the gloves: rubber, butyl rubber, neoprene. In case of short term contact use protective gloves with effectivness level 2 or higher (permeation time > 30 minutes). In case of long term contact use protective gloves with effectivness level 6 (permeation time > 480 minutes). Wear antistatic protective clothing.

When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.

Eye protection

Wear tightly fitting protective glasses in accordance with EN ISO 16321-1:2022-10.

Respiratory protection

In case of sufficient ventilation, it is not required. In case of emergency, formation of vapours use equipment or suitable protection class filter (class 1/protection against gases or vapours with a concentration in the air volume not exceeding 0,1 %, class 2 / protection against gases or vapours with a concentration in the air not exceeding 0,5 %, class 3 / protect against gases or vapours at concentrations in the air volume to 1 %).

Thermal hazards

Do not occur.

Environmental exposure controls

Do not allow large amounts of the product to enter groundwater, sewage system, sewage or soil. Uncontrolled release of the product into the environment should be reported to appropriate authorities in accordance with national and local regulations.

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour	characteristic
Melting point/freezing point:	- 88 °C
Boiling point or initial boiling point and boiling range:	82-83 °C
Flammability:	highly flammable liquid and vapour
Lower and upper explosion limit:	2 % vol. / 12 % vol.
Flash point:	12 °C (closed-cup method)
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Kinematic viscosity:	not determined
Solubility:	soluble in water
Partition coefficient n-octanol/water (log value):	0.05
Vapour pressure:	6020 Pa (20 °C)
Density and/or relative density:	0,785-0,786 g/cm^3 (20 °C)
Relative vapour density:	2 (air=1)
Particle characteristics:	not applicable

9.2 Other information

Dynamic viscocity:	2,43 mPa·s (20 °C)
Surface tension:	22,7 mN/m
Volatile Organic Carbon Content:	59,9 %

Section 10: Stability and reactivity

10.1 Reactivity

The product is reactive. Vapours may form explosive mixtures with air. It does not undergo dangerous polymerization. See also subsections 10.3-10.5.

10.2 Chemical stability

The product is stable under normal conditions of handling and storage.

10.3 Possibility of hazardous reactions

Reacts violently with strong oxidants, lyes, amines, alkanolamine, aldehydes.

10.4 Conditions to avoid

Avoid direct sunlight, heat and ignition sources, UV light.

10.5 Incompatible materials

Strong oxidants, strong acids, alkalis, amines, alkanolamines, iron, aluminum, Monel alloy.

10.6 Hazardous decomposition products

Not known.

Section 11: Toxicological information

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

Acute toxicity

LD_{50} (oral)	> 2000 mg/kg
LD_{50} (skin)	> 2000 mg/kg

LC_{50} (inhalation) > 5 mg/l

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

Skin corrosion/irritation

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

Serious eye damage/irritation

Causes serious eye irritation.

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

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

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

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

Information on likely routes of exposure

Routes of exposure: skin contact, eye contact, inhalation, ingestion. See subsection 4.2 for more information on the effects from each possible route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2.

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

See subsection 4.2.

11.2 Information on other hazards

Endocrine disrupting properties

The substance has not been included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or as substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other information

Not known.

Section 12: Ecological information

12.1 Toxicity

Toxicity for fish	LC_{50}	> 100 mg/l/48 h (*Leuciscus idus melanotus)*
Toxicity for daphnia	EC_{50}	> 100 mg/l/48 h (*Daphnia magna)*
Toxicity for algae	EC_{50}	> 100 mg/l/72 h (*Scenedesmus subspicatus)*

The substance is not classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

It undergoes biodegradation in 70 % after 10 days.

12.3 Bioaccumulative potential

Low bioaccumulation potential.

Log P_{ow} 0,05

12.4 Mobility in soil

Mobility depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5 Results of PBT and vPvB assessment

The substance does not meet the criteria for classification as PBT or vPvB in accordance with Annex XIII of the REACH Regulation.

12.6 Endocrine disrupting properties

The substance has not been included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or as substance identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

The substance is not classified as hazardous to the ozone layer. The possibility of other harmful effects of the substance on the environment should be considered (e.g. global warming potential).

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Store residues in original containers. Do not empty into drains. Do not dispose of with municipal waste. Waste code should be given in the place of waste formation.

Disposal methods for used packing: reuse / recycle / liquidate empty containers in accordance with the local legislation. Only completely emptied packaging can be recycled. Waste code should be given in the place of waste formation.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: Transport information

14.1 UN number or ID number

UN 1219

14.2 UN proper shipping name

ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es)

3

14.4 Packing group

II

14.5 Environmental hazards

The substance is not classified as hazardous according to transportation regulations.

14.6 Special precautions for user

Wear personal protective equipment in accordance with section 8. Eliminate all sources of ignition.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishinga European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EECand Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)as amended.

Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Text with EEA relevance).

Directive 2004/37/EC Of The European Parliament and Of The Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) as amended.

2000/39/EC COMMISSION DIRECTIVE of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work as amended.

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) as amended.

91/322/ECC Commission Directive of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work as amended.

ADR Agreement concerning the International Carriage of Dangerous Goods by Road.

IMDG Code International Maritime Dangerous Goods Code

IATA Dangerous Goods Regulations

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for the substance.

Section 16: Other information

Clarification of aberrations and acronyms

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
TWA	Time-weighted average
STEL	Short-term exposure limit

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. People associated with transport of hazardous materials in accordance with ADR should be adequately trained for their job responsibilities (general training, bench and safety).

Key literature references and data sources

This SDS was prepared on the basis of safety data sheet provided by the manufacturer, literature data, online databases, as well as our knowledge and experience, taking into account current legislation.

Additional information

Date of update:	06.06.2025
Version:	2.1/EN
Changes:	sections: 1, 8, 9, 15, 16
Safety Data Sheet made by:	**THETA Consulting Sp. z o.o.** (based on manufacturer's data)

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.