

SAFETY DATA SHEET

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

QUNND_6

Date: 19.04.2023

Revision: -

Page/pages: 1/9

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

1.1. Product identifier

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

Relevant identified uses: Used as fluorescent markers, crystal growth, conductive polymer input, polishing materials, in scientific research.

Uses advised against: Not determined.

1.3. Details of the supplier of the safety data sheet

Supplier: Politechnika Gdańska

Address: Poland; PL 80-233 Gdańsk, Gabriela Narutowicza 11/12

Telephone/Fax: +48583471503

E-mail address of the person responsible for the SDS: robbogda@pg.edu.pl

1.4. Emergency telephone number

112 (emergency call)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC:

Flam. Liq. 2; H225

Eye Irrit. 2; H319

STOT SE 3; H336

Hazards to man: Causes serious eye irritation. May cause drowsiness or dizziness.

Hazards to environment: Does not meet the criteria of classification as dangerous for the environment.

Hazard from physical and chemical properties: Highly flammable liquid and vapour.

In section 16 stated the meaning of H-phrases and symbols.

2.2. Label elements

Label accordance with Regulation 1272/2008/EC (CLP)

Hazard pictograms, signal words:



Danger

Hazard statements:

H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

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Precautionary statements:

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 - Avoid breathing mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P501 - Dispose of contents/container to disposal containers.

The names of hazardous ingredients on the label: Propan-2-ol.

2.3. Other hazards

The product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation 1907/2006 (REACH).

The product does not contain ingredients entered in the list established in accordance with Art. 59 paragraph 1 as having endocrine disrupting properties or components with endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100/EU or Regulation 2018/605/EU in a concentration equal to or greater than 0.1 %.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

The suspension contains the following ingredients:

Substance name:	Propan-2-ol
Concentration [%]:	99.99
CAS Number:	67-63-0
EC Number:	200-661-7
Index Number:	603-117-00-0
Classification 1272/2008/EC:	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
The registration number:	01-2119457558-25-XXXX

Substance name:	Carbon (Diamond)*
Concentration [%]:	0.01
CAS Number:	7782-40-3
EC Number:	231-953-2
Index Number:	-
Classification 1272/2008/EC:	-
The registration number:	Not applicable. The substance does not import more than 1 tonne per year (Article 6 (1) of Regulation 1907/2006 (REACH))

*Substance not classified in Annex VI, Table 3.1 of Regulation 1272/2008.

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Type of diamond:	Synthetic, boron-doped diamond (BDD) synthesized via chemical vapor deposition (CVD)
Dispersion medium:	2-Propanol
Mean size of diamond particles:	1.4 µm
Concentration of diamond (w/w):	0.01 %
Volume (single package):	10 ml

In section 16 stated the meaning of H-phrases and symbols.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Remove affected person to fresh air and keep rested. Call a POISON CENTRE/doctor if you feel unwell.

Skin contact: Take off immediately all contaminated clothing. Rinse skin with water. Seek medical advice if there are worrisome symptoms.

Eye contact: Remove any contact lenses. Wash immediately contaminated eyes with plenty of water for at least few minutes, with eyelids rolled up. From time to time, overlap the upper eyelid with the lower eyelid. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse out mouth with water. Seek medical advice if there are worrisome symptoms.

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

Inhalation: May cause drowsiness or dizziness.

Skin contact: May cause skin irritation.

Eye contact: Causes serious eye irritation.

Ingestion: It usually does not cause negative health effects.

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

Remove affected person from the environment contaminated by the product. In the event of health problems, consult your doctor or the centre of toxicological concern. Provide the information contained in the SDS. If unconscious, do not give anything by mouth.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), foam, dry chemical.

Unsuitable extinguishing media: Not specified.

5.2. Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Hazardous products can form during a fire e.g.: carbon monoxide. Avoid inhalation of combustion products, because they may pose a health risk. Propan-2-ol vapors are heavier than air and may accumulate near the ground. Explosive mixtures with air may form at ambient temperature.

5.3. Advice for firefighters

Wear full protective equipment and self-contained breathing apparatus with independent air circulation. Containers exposed to fire or high temperature cool with water and if possible remove from the danger zone. Protect drains, surface waters and soil from pollution. Treat fire water as a dangerous pollutant and collect it in separate containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Access of non-emergency personnel to the area of accident should be restricted until the completion of the disposal of the product. Wear

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appropriate personal protective equipment. Provide adequate ventilation. Avoid sources of ignition. Avoid breathing vapours.

For emergency responders: Wear appropriate personal protective equipment. Provide adequate ventilation. Avoid sources of ignition. Avoid breathing vapours.

6.2. Environmental precautions

Secure the gullies. Prevent contamination of surface and ground water. In the event of any serious pollution of the environment, notify the appropriate administrative authority, control and rescue services. The used containers should be disposed by delivering to eligible organizations.

6.3. Methods and material for containment and cleaning up

Secure damaged packaging. Absorb with absorbent material. Collected product put in a substitute container and direct to the destruction. Protect sewers and surface waters from contamination.

6.4. Reference to other sections

Disposal - see Section 13. Personal protective equipment - see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not eat, drink, smoke or take drugs at work. Wash hands before break and after work with product. Take off contaminated clothing and wash it before reuse. Provide adequate ventilation in the workplace. Use explosion-proof [electrical/ventilating/lighting] equipment. Use non-sparking tools. Take action to prevent static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Keep in properly labelled, factory sealed containers, with a label which complies with current regulations. Store in cool and well-ventilated room. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

7.3. Specific end use(s)

Used as fluorescent markers, crystal growth, conductive polymer input, polishing materials, in scientific research.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance name	TWA	STEL	BLV
Propan-2-ol [CAS: 67-63-0]	999 mg/m ³	1250 mg/m ³	-

Legal basis: Ordinance on maximum permissible concentration and intensity of harmful factors in the work environment in accordance with national limit values.

EH40/2005 Workplace exposure limits, fourth edition, published 2020, ISBN 978 0 7176 6733 8.

Monitoring procedures: Use methods described in European Standards.

8.2. Exposure controls

Mandatory general regulations on occupational health. Do not allow the crossing of the environment, the workplace concentration limits for hazardous constituents. After work, wash

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and clean the surface of the body and clothing. Do not eat, drink, smoke or take drugs at work. Take off all contaminated clothing and wash it before reuse. Wash hands and face before break and after working with the product. Provide adequate ventilation in the workplace.

Eye/face protection: Use appropriate safety glasses in accordance with EN 166.

Skin Protection: Use appropriate protective gloves according to EN 374. Use appropriate protective clothing.

Respiratory protection: With sufficient ventilation, it is not required.

Thermal Hazards: Not required.

The personal protective equipment used should meet the requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment. The employer must provide personal protective equipment appropriate to the type of work and in accordance with all requirements, including maintenance and cleaning.

Concentrations of hazardous substances in the workplace should be monitored in accordance with acknowledged test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

Environmental exposure controls: The large amount of product should not be allowed to penetrate through the ground water, sewage, waste water or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Suspension
Colour:	White, opaque
Odour:	Alcoholic*
Melting point/freezing point:	-89.4 °C
Boiling point or initial boiling point and boiling range:	82.4 °C (1013 hPa)*
Flammability:	Not specified
Lower and upper explosion limit:	2 % vol. / 13.4 % vol.*
Flash point:	12.0 °C*
Auto-ignition temperature:	425 °C*
Decomposition temperature:	Not specified
pH:	Neutral*
Kinematic viscosity:	Not specified
Solubility:	Not specified
Partition coefficient n-octanol/water (log value):	Not specified
Vapour pressure:	43 hPa at 20 °C*
Density and/or relative density:	Not specified
Relative vapour density:	2.07*
Particle characteristics:	Not specified

*Physicochemical properties for propan-2-ol.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not specified.

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9.2.2. Other safety characteristics

Not specified.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product under proper conditions of use is not chemically reactive.

10.2. Chemical stability

Stable under normal conditions of storage.

10.3. Possibility of hazardous reactions

Not specified.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Strong oxidants, acid anhydrides, aluminum, halogen compounds, acids.

10.6. Hazardous decomposition products

None under normal conditions of use and storage.

SECTION 11: Toxicological information

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

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

Propan-2-ol [CAS: 67-63-0]

LD₅₀ (oral, rat) 5840 mg/kg b.w. (OECD 401)

LC₅₀ (inhalation, rat) 34.5 mg/l/4 h (OECD 403)

LD₅₀ (skin, rabbit) 12800 mg/kg b.w.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: 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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Not applicable.

11.2.2. Other information

Inhalation: May cause drowsiness or dizziness.

Skin contact: May cause skin irritation.

Eye contact: Causes serious eye irritation.

Ingestion: It usually does not cause negative health effects.

SECTION 12: Ecological information

12.1. Toxicity

Does not meet the criteria of classification as dangerous for the environment.

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Propan-2-ol [CAS: 67-63-0]

Toxicity to fish:

LC₅₀ (*Pimephales promelas*) 9.640 mg/l/96 h (OECD 203)

Toxicity to anhydrous invertebrates:

EC₅₀ (*Daphnia magna*) 13299 mg/l/48 h

Toxicity to algae:

IC₅₀ (*Desmodesmus subspicatus*) >1000 mg/l/72 h

Toxicity to bacteria:

EC₅ (*Pseudomonas putida*) 1050 mg/l/16 h

12.2. Persistence and degradability

Not specified.

12.3. Bioaccumulative potential

Not specified.

12.4. Mobility in soil

Not specified.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

Not specified.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

During removal of waste comply with the regional/national laws.

Community legislation:

- 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.

Disposal methods for the product: Do not introduce into the environment. Disposal in accordance with the local/national legislation.

Disposal methods for used packing: Product and containers give for appropriate rubbish dump or for disposal in accordance with the local/national legislation.

Waste code is assigned depending on the source of their creation, the end user should taking into account the specific conditions of use of the product, define waste and assign the appropriate code in accordance with current regulations.

SECTION 14: Transport information

	ADR	RID	ADN	IMDG	ICAO TI
14.1. UN number or ID number	UN 1219				
14.2. UN proper shipping name	ISOPROPANOL		ISOPROPANOL	Isopropanol	
14.3. Transport hazard class(es)	3				
14.4. Packing group	II				

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14.5. Environmental hazards	No
14.6. Special precautions for user	During cargo handling use personal protective equipment - see Section 8.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable

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, Authorisation and Restriction of Chemicals (REACH), establishing a 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/EEC and 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 as amended.

Commission Regulation (EU) 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).

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.

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.

Commission directive 2000/39/EC 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.

Commission directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission directive (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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SECTION 16: Other information

The full text of H-statements from Sections 2 and 3:

H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Key to abbreviations and acronyms:

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

AND European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

EC₅ - The concentration of a chemical required to elicit a threshold positive response.

EC₅₀ - Half maximal effective concentration.

Eye Irrit. 2 - Eye irritation, Hazard Category 2.

Flam. Liq. 2 - Flammable liquids, Hazard Category 2.

IC₅₀ - Half maximal inhibitory concentration.

ICAO TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG - International Maritime Dangerous Goods.

LC₅₀ - Median lethal concentration.

LD₅₀ - Median lethal dose.

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.

STOT SE 3 - Specific target organ toxicity - Single exposure, Hazard Category 3, Narcosis.

Sources of key data:

Material Safety Data Sheets.

Database of the European Chemicals Agency.

Training advice: Before use read the SDS.

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 also treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above also of improper compliance with the law norms in the field.

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