



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 PolySteril Personal Care liquid

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

Relevant identified uses: washing and sanitizing hands without using water, skin care.

Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Supplier: **NanoPure Sp. z o.o.**

Address: ul. Postępu 14b, 02-676 Warszawa, Poland

Telephone number: + 48 507 065 112

E-mail address for a competent person responsible for SDS: rafal.banasiuk@nanopure.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

Highly flammable liquid and vapour. Causes serious eye irritation.

2.2 Label elements

Hazard pictograms and signal words



DANGER

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container to properly labeled waste containers in accordance with national legislation.

2.3 Other hazards

The components do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

| | | |
|---|---|--------|
| CAS number: 64-17-5 EC number: 200-578-6 Index number: 603-002-00-5 Registration number: 01-2119457610-43-XXXX | ethanol Flam. Liq. 2 H225, Eye Irrit. 2 H319 <u>Specific concentration limits</u> Eye Irrit. 2 H319: ≥ 50 % | < 75 % |
| CAS number: 57-55-6 EC number: 200-338-0 Index number: — Registration number: 01-2119456809-23-XXXX | propane-1,2-diol substance is not classified as hazardous | < 7 % |
| CAS number: 67-63-0 EC number: 200-661-7 Index number: 603-117-00-0 Registration number: 01-2119457558-25-XXXX | propan-2-ol Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336 | < 1 % |
| CAS number: 78-93-3 EC number: 201-159-0 Index number: 606-002-00-3 Registration number: 01-2119457290-43-XXXX | butanone¹⁾ Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 ²⁾ | < 1 % |

¹⁾ Substance with a specific value at the Community level of the permissible concentration in the work environment.

²⁾ Additional hazard statement.

Full text of each relevant H phrase is given in section 16 of sds.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: no adverse health effects should be expected after this route exposure, the product is intended for hygienic hand disinfection. Consult a doctor if disturbing symptoms appear, show the container or label.

Eye contact: wash the contaminated eye with plenty of water for at least 15 minutes. Protect the non-irritated eye, remove contact lenses. Avoid powerful water stream – risk of cornea damage. Consult ophthalmologist if disturbing symptoms appear.

Ingestion: rinse mouth with water. Do not induce vomiting, Never give anything by mouth to an unconscious person. Consult a doctor, show the container or label.

Inhalation: move victims to fresh air, keep them warm and calm. Consult a doctor if disturbing symptoms appear.

4.2 Most important symptoms and effects, both acute and delayed

There are no known significant effects other than resulting from classification.

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: fire-resistant foam resistant to alcohol, extinguishing powder, carbon dioxide (CO₂), water spray. Adjust the extinguishing media to the surrounding materials.

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



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5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce harmful gases containing, e.g carbon oxides and other unidentified thermal decomposition products. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals Do not let extinguishing media reach drainage system, soil, ground and surface water. Highly flammable liquid and vapour. In case of fire, cool endangered containers with water spray from a safe distance. Collect the used extinguishing media.

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. In case of large spills, isolate the exposed area. Ensure that the effects of the breakdown are removed only by trained personnel. Use personal protective measures. Avoid eyes contamination. Do not breathe product's vapours. Ensure adequate ventilation. Prevent electrostatic discharge.

6.2 Environmental precautions

Do not empty into drains, surface or ground water. In case of 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

Leaks soak up with incombustible liquid-binding material (e.g. sand, diatomaceous earth, vermiculite). Collect spilled material in labeled containers. Drain and pump larger spills. Treat collected material as waste. Clean well ventilate the contaminated place. Do not use sparking tools.

6.4 Reference to other sections

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

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid contact with eyes. Do not breathe product's vapours. Use personal protective measures. Proceed according to the safety data sheet or information contained on the label. Do not eat, drink or smoke while working. Before break and after work wash hands carefully. Use as intended. Warning! Danger of slipping on released product. Do not use sparking tools.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry and cool place, avoid direct sunlight from containers containing the product. Keep away from food, beverages or feed for animals. Keep away from incompatible materials (see subsection 10.5). Keep away from heat and ignition sources.

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

| Specification | TWA 8 hour | | STEL 15 min | |
|------------------------|-----------------------|---------|-----------------------|---------|
| butanone [CAS 78-93-3] | 900 mg/m ³ | 200 ppm | 900 mg/m ³ | 300 ppm |

Legal Basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU, 2019/1831/EU.

The table above shows the maximum workplace concentration values at the Community level.

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

Recommended control procedures

Procedures concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace - if they are available and Justified for the position - in Accordance with the European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

DNEL value for ethanol [CAS 64-17-5]

| Exposure route | Exposure scheme | DNEL (workers) |
|----------------|------------------------|------------------------|
| inhalation | Long-term systemic | 950 mg/m ³ |
| | Acute effects systemic | 1900 mg/m ³ |
| skin | Long-term systemic | 343 mg/kg |
| Exposure route | Exposure scheme | DNEL (population) |
| inhalation | Long-term systemic | 114 mg/m ³ |
| skin | Acute effects systemic | 850 mg/kg |
| | Acute effects systemic | 950 mg/kg |
| | Long-term systemic | 206 mg/kg |
| oral | Long-term systemic | 87 mg/kg |

DNEL value for propane-1,2-diol [CAS 57-55-6]

| Exposure route | Exposure scheme | DNEL (workers) |
|----------------|--------------------|-----------------------|
| inhalation | Long-term systemic | 168 mg/m ³ |
| | Long-term local | 10 mg/m ³ |
| Exposure route | Exposure scheme | DNEL (population) |
| inhalation | Long-term systemic | 50 mg/m ³ |
| | Long-term local | 10 mg/m ³ |
| skin | Long-term systemic | 213 mg/kg |
| oral | Long-term systemic | 85 mg/kg |

PNEC value for ethanol [CAS 64-17-5]

| | |
|----------------------------|------------|
| fresh water | 0,96 mg/L |
| freshwater sediment | 3,6 mg/kg |
| marine water | 0,79 mg/l |
| wastewater treatment plant | 580 mg/L |
| soil: | 0,63 mg/kg |
| intermittent releases | 2,75 mg/L |

PNEC value for propane-1,2-diol [CAS 57-55-6]

| | |
|----------------------------|-------------|
| fresh water | 260 mg/L |
| freshwater sediment | 572 mg/kg |
| marine water | 26 mg/L |
| marine water sediment | 57,2 mg/kg |
| wastewater treatment plant | 20 000 mg/L |
| soil | 50 mg/kg |
| intermittent releases | 183 mg/L |



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8.2 Exposure 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. Avoid contact with eyes. Take off contaminated clothing and wash before reuse. Ensure general and/or local ventilation in a workplace to maintain concentrations of harmful components in the air below the specified limit values. If there is a risk of inflammation of the clothing on worker, emergency showers for washing entire body and separate eyewash stations should be installed no more than 20 min a straight line from the working area where these processes are performed. Use personal protective measures.

Hand and body protection

Not required. In case of prolonged or repeated contact with the product, if the risk assessment indicates it is necessary to wear protective gloves. The material for the gloves should be selected individually at the workplace.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed.

Eyes protection

Wear eye protection if there is a risk of eye contamination.

Respiratory protection

Not required in case of adequate ventilation. In the event of high vapor concentrations, breakdowns or exceeding of the maximum permissible concentrations, use suitable respiratory protective equipment with the appropriate organic vapor absorber.

Applied personal protective equipment must comply with the requirements of the Regulation (EU) 2016/425. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

Environmental exposure controls

Do not allow the large quantity of the mixture to ground water, sewage system or soil. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|----------------------------|
| physical state: | liquid |
| colour: | colorless |
| odour: | characteristic, alcocholic |
| odour threshold: | not determined |
| pH: | ca. 7 |
| melting point/freezing point: | not determined |
| initial boiling point and boiling range: | ≥ 35 °C |
| flash point: | < 23 °C |
| evaporation rate: | not determined |
| flammability (solid, gas): | not applicable |
| upper/lower flammability or explosive limits: | not determined |
| vapour pressure: | not determined |
| vapour density: | not determined |
| density: | 0,87 g/cm ³ |
| solubility(ies): | soluble in water |
| partition coefficient: n-octanol/water: | not determined |
| auto-ignition temperature: | not determined |



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| | |
|----------------------------|----------------|
| decomposition temperature: | not determined |
| explosive properties: | not display |
| oxidising properties: | not display |
| dynamic viscosity: | 0,95 mPa·s |

9.2 Other information

No additional test results.

Section 10: Stability and reactivity

10.1 Reactivity

Product is reactive. Product does not undergo a dangerous polymerization. See also subsections 10.3-10.5

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Hazardous reactions are not known.

10.4 Conditions to avoid

Avoid direct sunlight, sources of heat and ignition.

10.5 Incompatible materials

Strong oxidants.

10.6 Hazardous decomposition products

Not known.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicity of components

ethanol [CAS 64-17-5]

| | |
|------------------------------------|--------------|
| LD ₅₀ (oral, rat) | 7 060 mg/kg |
| LC ₅₀ (inhalation, rat) | > 50 mg/L/4h |

propane-1,2-diol [CAS 57-55-6]

| | |
|---------------------------------------|-------------------|
| LD ₅₀ (oral, rat) | > 22 000 mg/kg |
| LD ₅₀ (inhalation, rabbit) | > 317 042 mg/l/2h |
| LC ₅₀ (skin, rabbit) | > 2 000 mg/kg |

Toxicity of mixture

Acute toxicity

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.



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Reproductive toxicity

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

STOT-single exposure

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

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.

Symptoms related to physical, chemical and toxicological properties

Skin contact: redness, dryness, cracking of the skin, degreasing possible after prolonged contact.

Eye contact: redness, tearing, irritation.

Ingestion: nausea, vomiting, disorder of balance and coordination, symptoms similar to alcohol intoxication.

Inhalation: in the case of high concentration of vapors the product may cause headache, dizziness.

Section 12: Ecological information

12.1 Toxicity

Toxicity of components

ethanol [CAS 64-17-5]

| | | |
|----------------------------|------------------|---|
| Toxicity for fish | LC ₅₀ | 9 000 mg/L/24h |
| Toxicity for invertebrates | EC ₅₀ | 0,25 mg/L/6h/ <i>Carassius auratus</i> |
| Toxicity for invertebrates | EC ₅₀ | 7800 mg/L/ <i>Daphnia magna</i> |
| Toxicity for bacteria | EC ₅₀ | 6500 mg/L/ <i>Pseudomonas putida</i> |
| Toxicity for algae | IC ₅₀ | 5000 mg/L/ <i>Scenedesmus quadricauda</i> |

propane-1,2-diol [CAS 57-55-6]

| | | |
|-----------------------------|------------------|---|
| Toxicity for fish | LC ₅₀ | 40613 mg/L/96h/ <i>Oncorhynchus mykiss</i> |
| Toxicity for invertebrates | EC ₅₀ | 18800 g/L/48h/ <i>Mysidopsis bahia</i> |
| Toxicity for algae | EC ₅₀ | 24200 mg/L/72h/ <i>Selenastrum capricornutum</i> (OECD 201) |
| Toxicity for microorganisms | EC ₀ | > 20.000 mg/L/18h/ <i>Pseudomonas putida</i> |

Toxicity of mixture

Product is not classified as hazardous for the aquatic environment.

12.2 Persistence and degradability

ethanol [CAS 64-17-5]

biodegradation 89 %/ 14 days

propan-2-ol [CAS 67-63-0]

biodegradation 86 %/ 14 days

butanone [CAS 78-93-3]

biodegradation 89 %/ 20 days

Data from the European Chemicals Agency.

12.3 Bioaccumulative potential

ethanol [CAS 64-17-5]

log Po/w = -0,31; BCF = 3.

propan-2-ol [CAS 67-63-0]

log Po/w = 0,05; BCF = 3



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butanone [CAS 78-93-3]

log Po/w = 0,29; BCF = 3

Data from the European Chemicals Agency.

12.4 Mobility in soil

Mobility of components of the mixture in soil 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

Components of the mixture do not meet the PBT or vPvP criteria.

12.6 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, endocrine disrupting potential, global warming potential).

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the product: do not empty into drains. Do not store in municipal landfills. Dispose in accordance with the local regulations. Waste code should be given in the manufacturing place.

Disposal methods for used packing: give the packaging to an authorized company. Do not mix with other waste. Waste code should be given in the manufacturing place.

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

Section 14: Transport information

14.1 UN number

UN 1993

14.2 UN proper shipping name

FLAMMABLE LIQUID, N.O.S. [ETHANOL, PROPAN-2-OL]

14.3 Transport hazard class(es)

3

14.4 Packing group

II

14.5 Environmental hazards

Product is not classified as dangerous for the environment according to transport regulations.

14.6 Special precautions for user

Wear personal protective equipment in accordance to section 8. Avoid sources of ignition and fire.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

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, Authorization 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.



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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) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on 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.

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 2017/164/EU 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.

Regulation (EU) No 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.

Commission Directive 2019/1831/EU 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 is not required for mixtures in accordance with REACH Regulation.

Section 16: Other information

Full text of indicated H phrases mentioned in section 3

| | |
|--------|---|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Clarification of aberrations and acronyms

| | |
|--------------|--|
| Eye Irrit. 2 | Eye irritation cat. 2 |
| Flam. Liq. 2 | Flammable liquid cat. 2 |
| STOT SE 3 | Specific target organ toxicity – single exposure cat. 3 |
| DNEL | Derived No-Effect Level |
| PNEC | Predicted No-Effect Concentration |
| PBT | Persistent, Bioaccumulative and Toxic substance |
| vPvB | very Persistent, very Bioaccumulative substance |
| STEL | Short Term Exposure Limit STEL |
| TWA | Total Weighted Average (permissible exposure limit; Occupational Safety and Health Administration) |

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 sources of data

This SDS was prepared on the basis of sheets of the individual components, literature data, online databases (e.g. ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.

Procedures used to classify the mixture

Classification was based on data on the content of hazardous substances and prepared using calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended.



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Other data

Date of issue: 27.04.2020

Version: 1.0/EN

Safety Data Sheet made by: „**THETA**” Doradztwo Techniczne

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.