

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Rev. 2015-05

1. Identification of the substance/preparation and of the company/undertaking

Information on the product

Trade name: picosep

Company/undertaking identification:

picodent GmbH
Lüdenscheider Str. 24-26
D-51688 Wipperfürth

www.picodent.de
Telephone-No. +49 2267 6580-0
Fax-No. +49 2267 6580-30

Responsible Department:

picodent GmbH
Lüdenscheider Str. 24-26
D-51688 Wipperfürth

www.picodent.de
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Emergency telephone:

picodent GmbH, Wipperfürth

Telephone-No. +49 2267 6580-0

2. Hazards identification

Classification of the substance or mixture

This mixture is classified as not hazardous according to 1999/45/EC.
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

Label elements

Special labelling of certain mixtures

EUH210 Safety data sheet available on request.

Additional advice on labelling

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

Other hazards

Adverse physicochemical effects:

See section 9 for physical and chemical properties.
Vapours of flammable solvents can accumulate in the gas phase of closed container, especially during heat treatment.
Therefore keep away from fire and sources of ignition.

Adverse human health effects and symptoms:

See section 11 for toxicological information.

Adverse environmental effects:

See section 12 for environmental information.

Other adverse effects:

Special danger of slipping by leaking/spilling product.

Results of PBT-/vPvB-assessment:

See under section 12.5 - Results of PBT and vPvB assessment.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

3. Composition/information on ingredients

Mixtures

Chemical characterization Solution of surfactants in a water-alcohol-mixture

Hazardous components

| EC No | Chemical name | Quantity |
|------------------|---|-----------|
| CAS No | Classification according to Directive 67/548/EEC | |
| Index No | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| REACH No | | |
| 200-661-7 | propan-2-ol (isopropanol) | 1 - < 5 % |
| 67-63-0 | F - Highly flammable, Xi - Irritant R11-36-67 | |
| 603-117-00-0 | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 | |
| 01-2119457558-25 | | |

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

Further Information none

4. First aid measures

Description of first aid measures

General information

Remove affected person from the danger area and lay down. Take off immediately all contaminated clothing and wash it before reuse.
Put victim at rest, cover with a blanket and keep warm. Do not leave affected person unattended.
If a person vomits when lying on his back, place him in the recovery position.
If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Self-protection of the first aider: Wear personal protection equipment (see chapter 8).
First Aid.

Notes for the doctor: No special measures are necessary.

After inhalation

Remove victim out of the danger area.
Provide fresh air.
Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

After contact with skin

Wash immediately with:
Water and soap
Rub greasy ointment into the skin.
Do not wash with:
Solvents/Thinner
In case of skin irritation, consult a physician.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Protect uninjured eye.

After ingestion

Do NOT induce vomiting. Give nothing to eat or drink. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The following symptoms may occur:
Cough
Acidosis
Central nervous system depression
Headache
Nausea
Drowsiness
Dizziness

Indication of any immediate medical attention and special treatment needed

Treat symptomatically

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Full water jet
Water spray jet
Water mist
Extinguishing powder (ABC-powder)
Foam
Carbon dioxide (CO2)

Fire class: not relevant

Unsuitable extinguishing media

None known

Special hazards arising from the substance or mixture

Hazardous combustion products:
None known
The product itself does not burn.

Advice for firefighters

Usual measures of preventive and averting fire protection. Co-ordinate fire-fighting measures to the fire surroundings. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters:

not relevant

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol.
In case of warming: Remove all sources of ignition.
Prevent further leakage or spillage if safe to do so.
Provide adequate ventilation.
Special danger of slipping by leaking/spilling product.

For non-emergency personnel:
Use personal protection equipment.
Walk out of the danger zone and notify trained personnel.

Emergency procedures:
Keep the factory emergency plan and the information chain.

For emergency responders:
Use personal protection equipment.
The personal protective equipment must be adapted to the situation.
Suitable material:
See under section 8.2 - Personal protection equipment.

Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.
Ensure waste is collected and contained.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Methods and material for containment and cleaning up

For containment:
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Cover drains.

For cleaning up:
Clean-up methods - large spillage:
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Shovel into suitable container for disposal.
Local authorities should be advised if significant spillages cannot be contained.
Clean-up methods - small spillage:
Clear spills immediately.
Wipe up with absorbent material (eg. cloth, fleece).
Collect in closed and suitable containers for disposal.
Clear contaminated areas thoroughly.
Recommended cleansing agent:
Clean with detergents. Avoid solvent cleaners.
Retain contaminated washing water and dispose it.
Ensure all waste water is collected and treated via a waste water treatment plant.
Ventilate affected area.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Suitable material for taking up:

Sand
Kieselguhr
Universal binder
Absorbing material, organic

Unsuitable material for taking up:

None known

Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Measures to prevent aerosol and dust generation:

It is recommended to design all work processes always so that the following is excluded:

Inhalation of vapours or spray/mists

Eye contact

Skin contact

Technical ventilation of workplace

Use only in a exhaust booth with integrated air filter.

Use in ventilated spray booths only.

Ensure that fresh air is supplied to the breathing zone of the operator and exhaust air is removed in his back!

Re-circulation of exhaust air is not recommended.

Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Measures to prevent fire:

The product is not: Combustible

The formation of combustible vapours is possible at temperatures above: +45 °C (Flash point - 15 °C)

Vapours can form explosive mixtures with air.

Only use the material in places where open light, fire and other flammable sources can be kept away.

Usual measures for fire prevention.

Fire-fighting equipment on the basis of class B.

Further information on handling

Environmental precautions:

Transfer wash-downs in sealed containers.

Provide for retaining containers, eg. floor pan without outflow.

For restriction of emission on volatile organic compounds (VOC) the solvent vapours should be supplied to an exhaust air purification facility (filter, gas washer, incineration).

Advices on general occupational hygiene:

Wear personal protection equipment (see chapter 8).

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

General industrial hygiene practice.

Handle in accordance with good industrial hygiene and safety practice.

Working places should be designed to allow cleaning at any time.

Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Clean spray booth and exhaust hood completely with every product change.
When using do not eat, drink, smoke, sniff.
Thorough skin-cleansing after handling the product.
Used working clothes should not be worn outside the work area.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:
Floors should be impervious, resistant to liquids and easy to clean.

Protect against:
Heat
Cold

Recommended storage temperature: +10 ... +30 °C

Keep away from:
Food and feedingstuffs

Packaging materials:
Suitable container/equipment material:
Keep/Store only in original container.
Unsuitable container/equipment material:
See under section 8.2 - Hand protection.

Advice on storage compatibility

Do not store together with:
Storage class:
1 (Explosive hazardous substances)
2 A (Gases)
5.1 A (Highly oxidising substances)
6.2 (Infectious substances)
7 (Radioactive substances)

Further information on storage conditions

Technical measures and storage conditions:
The valid water and zoning ordinances must be observed.
Keep container tightly closed.
Protect containers against damage.
Ensure adequate ventilation of the storage area.
Do not store outside.
See also instructions on the label.

Specific end use(s)

Recommendation:
Possibilities for substitution and references to less hazardous products:
This product was designed for a special application purpose and optimized appropriately.

Industrial sector specific solutions:

Hazardous substance information systems of professional associations:

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

8. Exposure controls/personal protection

Control parameters Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|---------|-------------|-----|-------------------|-----------|---------------|--------|
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | STEL (15 min) | WEL |

Additional advice on limit values

GESTIS - International Limit Values - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA): <http://limitvalue.ifa.dguv.de>
 Country information (EU): http://www.dguv.de/medien/ifa/en/gestis/limit_values/pdf/scoel.pdf
 Country information (GB): http://www.dguv.de/medien/ifa/en/gestis/limit_values/pdf/uk.pdf
 Occupational Exposure Limits of EU-memberstates - European Agency for Safety and Health at Work (OSHA) (<http://osha.europa.eu/en/topics/ds/oel/index.stm/members.stm>)
 Source of law: EH40 (GB) (<http://www.hse.gov.uk>)

Recommended monitoring procedures:

Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents (BS EN 14042):

Room air monitoring

Test tube

Preliminary concentration measurements:

Suitable detector tubes for measuring the current concentration in the air at the workplace:

DRÄGER test tubes - short-term tubes (<http://www.gasmesstechnik.de>)

DRÄGER test tubes - Short-term tubes - Alcohol 100 / a (lower alcohols, measuring range: 100 - 3000 ppm, response time: 90 sec) (<http://www.gasmesstechnik.de>)

Exposure limits at intended use:

See under section 8.1 - Occupational exposure limit values.

DNEL-/PNEC-values:

There are no exposure scenarios attached in the Appendix of this Safety Data Sheet.

Risk management measures according to used control banding approach:

Control banding for chemicals according to the ILO CHEMICAL CONTROL TOOLKIT (ICCT): ICCT-Guidelines and Control Guidance Sheets (http://www.ilo.org/legacy/english/protection/safework/ctrl_banding/toolkit/main_guide.pdf)

Used model:

Consider appropriate model solutions according to good engineering practices on designing the working process, if available.

Exposure controls



Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses:

Technical measures to prevent exposure:

Design of appropriate work processes and engineering controls and the use of adequate materials (physical cut-off of man and machine, model solutions as certified working methods, working appliance according to the state of the art, optimization of process / spray robots, working appliance for prevention of skin contact, models of working times).

Organisational measures to prevent exposure:

Execution of collective protection measures at source and appropriate organisational measures (local exhaust ventilation, ventilation by technical means, general ventilation, measures on averting a danger at breakdowns / at emergencies / after accidents, first-aid-measures, manner related measures: operating instruction / instruction of employees, occupational medicine health precaution).

Structural measures to prevent exposure:

Execution of individual and personnel protection measures (personal protective equipment - PPE).

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Technical measures and the application of suitable work processes have priority over personal protection equipment.

References for design of technical equipment:

See under section 7.1 - Precautions for safe handling.

Summary of the risk management measures for exposure scenario:

Use only the following product amount per time unit:

No information available.

Minimum room-width and room-height for handling/application:

No information available.

Minimum room ventilation rate for handling/application (air changes per hour):

No information available.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection:

Eye glasses with side protection (EN 166)

Recommended eye protection articles:

UVEX I-VO / UVEX I-3 / UVEX SUPER OTG

Or comparable articles from other companies.

Hand protection

Skin protection:

Preventive skin protection.:

Draw up skin protection programme.

Before starting work, apply water-resistant skincare preparations.

Wash hands before breaks and after work.

After cleaning apply high-fat content skin care cream.

Apply skin care products after work.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Decrease wearing protection gloves to an inevitable degree to avoid skin rash.

Technical and organizational protective actions have to be preferred.

Breakthrough times and swelling properties of the material must be taken into consideration.

Check leak tightness/impermeability prior to use.

Wear cotton undermitten if possible.

Change preventive gloves once by hour or use special skin-protective preparations for protective gloves carrier.

Take recovery periods for skin regeneration.

Do not wear gloves near rotary machines and tools.

Dispose preventive gloves after defect or expiry of wearing time. Replace when worn.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Wearing time with permanent contact:

Suitable gloves type:

Gloves with long cuffs

Recommended glove articles:

Suitable materials at long term, direct contact (Recommended: Preventive index 6, accordingly > 480 min. permeation time in accordance to EN 374):

Nitrile rubber / NBR - Layer thickness : 0,4 mm

Unsuitable material:

NR (natural rubber, natural latex)

Wearing time with occasional contact (splashes):

Suitable gloves type:

Disposable gloves

Recommended glove articles:

Suitable materials at short term contact or splash (Recommended: Preventive index 3, accordingly > 60 min. permeation time in accordance to EN 374):

Disposable gloves of special nitrile rubber / NBR - Layer thickness: 0,2 mm

The statements are based on self-tests, literary reference and information of glove manufacturers or have been derived from similar substances by analogy.

Source: CHEMIKALIEN-MANAGER - KCL software for hand protection.

It has to be noticed, that daily time of use of chemical protective gloves may be quite shorter in practice because of many factors of influence (e.g. thermal and mechanical stress as well as special conditions on the floor) than the permeation time determined in accordance to EN 374.

The respective permeation time doubles/halvens at about 1,5 times larger/lower layer thickness.

Declared permeation times according to EN 374 are not carried out under practical conditions. Therefore a maximum wearing time up to 50 % of breakthrough time is recommended.

They relate to the pure solvent as mean component.

Barrier creams are not substitutes for body protection.

Trade name: picosep

Skin protection Suitable protective clothing:
Overall, Natural fibres (e.g. cotton) (EN 340)

Chemical resistant safety shoes with conductible sole (EN 344)

Wash contaminated clothing prior to re-use.
Used working clothes should not be worn outside the work area.
Street clothing should be stored separately from work clothing.

Thermal hazards:
No thermal hazards during use of this product.

Respiratory protection

Respiratory protection necessary at:
exceeding exposure limit values
aerosol or mist formation
high concentrations
prolonged exposure
insufficient ventilation
insufficient exhaust

Use only respiratory protection equipment with CE-symbol including four digit test number.
Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m³ (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m³ (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m³ (1.0 % by vol.)

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

The use of filter equipment requires a minimum oxygen content of 17 Vol-% in the surrounding atmosphere and that the maximum permitted gas concentration - normally 0,5 Vol-% - is not exceeded.

Suitable respiratory protection apparatus:

Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits:
P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit.
P3 filter: up to a max. of 30 times the expo

Recommended respiratory protection articles:

Half mask or quarter mask with combination filter A1P1/A2P2 for gases, vapors and particles.
(EN 140, EN 14387)

Filtering half mask or quarter mask with combination filter FFA1 P1/FFA2P2 for gases, vapors and particles. (EN 405)

Gas filtrating Half-face mask FFA (EN 405)

Model 4251 (FFA1P1 - 1000 ml/m³) / 4255 (FFA2P2SL - 5000 ml/m³) (3M)

Half-face mask or Quarter-face mask with gas filter (EN 140, EN 14387)

Filter type 6051 (A1 - 1000 ml/m³) / 6055 (A2 - 5000 ml/m³) (3M)

Full-face mask with gas filter (EN 136, EN 14387)

Gas filter type: A, Indication colour: brown

Or comparable articles from other companies.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Environmental exposure controls

Environmental exposure controls:
 Technical measures to prevent exposure:
 Discharge exhaust air only with suitable separators to atmosphere.
 Organisational measures to prevent exposure:
 Should not be released into the environment.
 Structural measures to prevent exposure:

Use the following recovery and/or abatement technique for cleaning waste gases:
 Exhaust air scrubber
 Adsorption

Further information see under section 6.2 - Environmental precautions.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid
Colour: light yellow
Odour: characteristic

| | | | |
|--|--|----------------|---------------------------------|
| pH-Value: | | 9 | Test method DIN 19268 |
| Changes in the physical state | | | |
| Melting point: | | < 0 °C | literature value |
| Initial boiling point and boiling range: | | > 82 °C | literature value |
| Sublimation point: | | not applicable | |
| Softening point: | | not applicable | |
| Pour point: | | not applicable | |
| Flash point: | | > 60 °C | EN ISO 2719 |

Flammability

Solid: not applicable (liquid)
 Gas: not applicable (liquid)

Explosive properties

Vapour/air-mixtures are explosive at intense warming.
 The statements for steam pressure, ignition point and explosion levels apply to the solvent / solvent mixture.
 Research report PTB-W-57 (Germany): Prevention of ignition spray mist of commercial water dilutable laquers in process with electrostatic spray devices and -equipment -

Research report PTB-W-62 (Germany): Fire and explosion danger while atomizing flammable liquids and their mixtures with water -

High water amounts in the formula (> 76 %) lead to a complete inertness of the spray jet.
 Under practically processing conditions an ignition of the aerosols is therefore not to be expected.
 Therefore explosion protective measures are not necessary.

The classification as „not flammable liquid“, that cannot be ignited under influence of a source of ignition and not react explosively in mixture with air if sprayed was ascertained by calculation via formula according to german TRGS 507 based on the composition data (organic solids and liquids as well as the water content).

Water content = 97 % w/w. Calculated water content at least required for inertness = 5 % w/w.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Lower explosion limits: not relevant
 Upper explosion limits: not relevant
 Ignition temperature: not relevant

Auto-ignition temperature

Solid: Not pyrophoric.
 Gas: Not pyrophoric.
 Decomposition temperature: not relevant

Oxidizing properties

not relevant

Vapour pressure: Corresponds to the vapour pressure of water. < literature value
 (at 20 °C) 23 hPa
 Vapour pressure: Corresponds to the vapour pressure of water. < literature value
 (at 50 °C) 123 hPa
 Density (at 20 °C): 0,98 g/cm³ DIN 51757
 Bulk density: not applicable (liquid)
 Water solubility: emulsifiable
 (at 20 °C)

Solubility in other solvents

miscible with most organic solvents (Alcohols, aldehydes, Ketone)
 Partition coefficient: not applicable (Mixtures)
 Viscosity / dynamic: not determined
 Viscosity / kinematic: < 7 mm²/s 3 DIN EN ISO 2431
 (at 23 °C)
 Flow time: < 30 s 3 DIN EN ISO 2431
 (at 23 °C)
 Vapour density: not determined
 Evaporation rate: not determined
 Solvent separation test: not applicable
 Solvent content: not determined

Other information

Solid content: not determined
 Odor threshold (propan-2-ol; isopropyl alcohol; isopropanol): 100 ppm (Literary reference).

Surface tension: No data available
 Fat solubility (g/L): No data available
 Calculated oxidation potential of the mixture (OP): not relevant

Substance group relevant properties:

Explosives not applicable
 In use may form flammable/explosive vapour-air mixture.
 Flammable gases not applicable
 Flammable aerosols not applicable
 Oxidising gases Not oxidising.
 Gases under pressure not applicable (liquid)
 Flammable liquids not applicable
 Flammable solids not applicable
 Self-reactive substances and mixtures not applicable
 Pyrophoric liquids Not pyrophoric.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

| | |
|--|--------------------------|
| Pyrophoric solids | Not pyrophoric. |
| self-heating substances and mixtures | not applicable |
| Substances and mixtures which, in contact with water, emit flammable gases | not applicable |
| Oxidising liquids | Not oxidising. |
| Oxidising gases | Not oxidising. |
| Organic peroxides | not applicable. |
| Corrosive to metals | Not corrosive to metals. |

10. Stability and reactivity

| | |
|---|---|
| Reactivity | The product is chemically stable under recommended conditions of storage, use and temperature. |
| Chemical stability | The product is chemically stable under recommended conditions of storage, use and temperature. |
| Possibility of hazardous reactions | No hazardous reaction when handled and stored according to provisions. |
| Conditions to avoid | Further information see under section 7.2 - Conditions for safe storage, including any incompatibilities. Further information see under section 10.5 - Incompatible materials. |
| Incompatible materials | Violent reaction with: Hazardous substances that release flammable gases when in contact with water Oxidising agent, strong Further information see under section 7.1 - Precautions for safe handling. |
| Hazardous decomposition products | Does not decompose when used for intended uses. No known hazardous decomposition products. Under fire conditions: See under section 5.2 - Special hazards arising from the substance or mixture. |

11. Toxicological information

| | |
|--|--|
| Information on toxicological effects | |
| Toxicokinetics, metabolism and distribution | There are no data available on the preparation/mixture itself. The product has not been tested. |
| | Information on likely routes of exposure / Symptoms related to the physical, chemical and toxicological characteristics: See under section 4.2 - Most important symptoms and effects, both acute and delayed. |
| Exposure route: | In case of ingestion: Ingestion causes nausea, weakness and central nervous system effects. |
| In case of skin contact: | May cause skin irritation in susceptible persons. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). |
| In case of inhalation: | slightly irritant but not relevant for classification. |
| In case of eye contact: | slightly irritant but not relevant for classification. |

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Delayed and immediate effects as well as chronic effects

from short and long-term exposure:

Not relevant

Interactive effects:

Not relevant

Absence of specific data:

No data is available on the product itself. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components. However, some data are not complete regarding particular main components. Nevertheless according to the experience of the manufacturer there are no other hazards expected than those which are already mentioned on the label.

Mixture versus substance information:

Not relevant

Acute toxicity

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

Acute toxicity

| CAS No | Chemical name | Exposure routes | Method | Dose | Species | Source |
|---------|---------------------------|-------------------------|--------|-------------|---------|-----------|
| 67-63-0 | propan-2-ol (isopropanol) | oral | LD50 | 5840 mg/kg | Rat | ECHA |
| | | dermal | LD50 | 12956 mg/kg | Rabbit | ECHA |
| | | inhalative (4 h) vapour | LC50 | > 20 mg/l | Rat | ECHA [6h] |

Irritation and corrosivity

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

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects

for reproduction

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

Aspiration hazard

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

12. Ecological information

Toxicity

Aquatic toxicity:

Acute (short-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to crustacea:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to aquatic algae and cyanobacteria:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) toxicity to crustacea:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Toxicity to other aquatic plants/organisms:

No data available (Substances/ingredient)

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Terrestrial toxicity:

- Acute and subchronic bird toxicity:
No data available (Substances/ingredient)
- Bird reproduction toxicity:
No data available (Substances/ingredient)
- Acute earthworm toxicity:
No data available (Substances/ingredient)
- Chronical earthworm toxicity (reproduction):
No data available (Substances/ingredient)
- Useful insect toxicity:
No data available (Substances/ingredient)
- Acute plant toxicity:
No data available (Substances/ingredient)
- Chronic plant toxicity:
No data available (Substances/ingredient)
- Toxicity to soil macroorganisms except of arthropods:
No data available (Substances/ingredient)
- Effects on soil microorganisms:
No data available (Substances/ingredient)

- Behaviour in waste water treatment plants:
No data available

| CAS No | Chemical name | Method | Dose | [h] [d] | Species | Source |
|---------|---------------------------|--------|---------------|-----------|-------------------------|-------------|
| 67-63-0 | propan-2-ol (isopropanol) | | | | | |
| | Acute fish toxicity | LC50 | 9640 mg/l | 96 h | Pimephales promelas | ECHA |
| | Acute algae toxicity | ErC50 | > 1800 mg/l | 96 h | Scenedesmus quadricauda | ECHA [168h] |
| | Acute crustacea toxicity | EC50 | > 10000 mg/l | 48 h | Daphnia magna | ECHA [24h] |
| | Algea toxicity | NOEC | 1800 mg/l | 7 d | Scenedesmus quadricauda | ECHA |
| | Acute bacteria toxicity | | (> 1050 mg/l) | 3 h | Pseudomonas putida | ECHA [16h] |

Persistence and degradability

- Abiotic degradation:
 - Physicochemical elimination:
 - Oxidation:
 - not applicable (Mixtures)
 - No data available (Substances/ingredient)
 - Hydrolysis:
 - not applicable (Mixtures)
 - No data available (Substances/ingredient)
 - Photochemical elimination:
 - photolysis:
 - not applicable (Mixtures)
 - No data available (Substances/ingredient)
 - Ozonolysis:
 - not applicable (Mixtures)
 - No data available (Substances/ingredient)

- Biodegradation:
 - not applicable (Mixtures)

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

| CAS No | Chemical name | Value | d | Source |
|---------|--|-------|---|--------|
| 67-63-0 | propan-2-ol (isopropanol) similar to EU Method C.5, similar to EU Method C.6 readily biodegradable | 53 % | 5 | ECHA |

Bioaccumulative potential

not applicable (Mixtures)

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|---------------------------|---------|
| 67-63-0 | propan-2-ol (isopropanol) | 0,05 |

Mobility in soil

Surface tension:

See under section 9.1 - Information on basic physical and chemical properties.

Distribution:

Water-air (volatility rate, Henry-constant):

not applicable (Mixtures)

No data available (Substances/ingredient)

Soil-Water (Adsorption coefficient):

not applicable (Mixtures)

No data available (Substances/ingredient)

Soil-Air (volatility rate):

not applicable (Mixtures)

No data available (Substances/ingredient)

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Other adverse effects

Ozone depletion potential (ODP):

No data available (Substances/ingredient)

Photochemical ozone creation potential (POCP):

No data available (Substances/ingredient)

Global warming potential (GWP):

No data available (Substances/ingredient)

Endocrine disrupting potential:

No data available

AOX: Product does not contain any organic halogens.

13. Disposal considerations

Waste treatment methods

Advice on disposal

Waste treatment options:

Transfer to an emulsion fission reactor or an emulsion evaporation system, observing official regulations.

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Properties of waste which render it hazardous:
none

Consult the appropriate local waste disposal expert about waste disposal.
For recycling, contact recycling exchanges.

May not be disposed or deposited together with domestic garbage.

Do not mix with other wastes.

Do not flush into surface water or sanitary sewer system.

Do not dispose of waste into sewer.

Before discharge in public drains (e.g. residues of washing- and rinsing liquids) please observe the relevant regulations. In case of further questions please contact your waste- or environmental representative or the responsible authority.

Clean IBCs or drums at approved facility only.

The waste producer is responsible for correct coding and designation of his wastes.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

List of proposed waste codes/waste designations in accordance with EWC:

Waste disposal number of waste from residues/unused products

070215 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; wastes from additives other than those mentioned in 07 02 14

Waste disposal number of used product

070215 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; wastes from additives other than those mentioned in 07 02 14

Waste disposal number of contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Other disposal recommendations:

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Cleaning by recycling company.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Handle contaminated packages in the same way as the substance itself.

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be disposed of.

As well uncleaned (empty) containers remain contaminated by product residues and may be hazardous by vapours.

They have to be disposed by specialists or have to be supplied to a licensed reconditioning.

The conditions of the regional reconditioning companies have to be observed.

14. Transport information

Land transport (ADR/RID)

Other applicable information (land transport) Not classified as dangerous in the meaning of transport regulations.

Inland waterways transport (ADN)

Other applicable information (inland waterways transport) Not classified for this transport way.

Marine transport (IMDG)

Marine pollutant: P

Other applicable information (marine transport) Not classified as dangerous in the meaning of transport regulations.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Air transport (ICAO)

Other applicable information (air transport) Not classified as dangerous in the meaning of transport regulations.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

not relevant

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not relevant

Other applicable information

not relevant

15. Regulatory information

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

EU regulatory information

1999/13/EC (VOC): Content of volatile organic compounds (VOC) = 2 % w/w.
VOC-value (25 °C) = 20 g/L.

Additional information

Authorisations and/or restrictions on use:

authorisations:

Authorisation of Chemicals (REACH) as regards Annex XIV:
not relevant

restrictions on use:

Restriction of chemicals (REACH) as regards annex XVII:
not relevant

Other regulations (EU):

Regulation (EC) No 1005/2009 - Substances that deplete the ozone layer:
not relevant

Regulation (EC) No 648/2004 - Detergents:
not relevant

Regulation (EC) No 649/2012 - Export and import of dangerous chemicals:
not relevant

Regulation (EC) No 850/2004 - Persistent organic pollutants:
not relevant

Directive 2012/18/EC - Control of major accident hazards involving dangerous substances (Seveso III):
not relevant

Directive 2004/42/EC - Use of organic solvents in certain paints and lacquers:
not relevant

Directive 2010/75/EU - Industrial Emissions Directive (Directive IE) - succession to Directive 1999/13/EC - Limitation of emissions of volatile organic compounds (VOC-Directive):

When using this substance / mixture it has to be checked whether the activities are subject to the requirements of IE-RL, Chapter V (installations and activities with the use of organic solvents - VOC).

Aerosol directive (75/324/EEC):
not relevant

Biocide directive (98/8/EC):
not relevant

Observe in addition any national regulations!

EC-Chemical inventories: All ingredients are listed in EINECS / ELINCS or excepted from listing.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

National regulatory information

Employment restrictions:

Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D):

1 - slightly water contaminating

Additional information

Other regulations, restrictions and prohibition regulations:

European product inventories (Registration status on mixtures):

Istituto Superiore di Sanità / Archivio Preparati Pericolosi - ISS (<http://www.preparatipericolosi.iss.it/iss/index.phtml>): This product was not registered.

Kemikalieinspektionen / Produktregistret / Swedish Chemicals Inspectorate - KemI (<http://apps.kemi.se/nclass/default.asp>): This product was not registered.

Schweizerische Eidgenossenschaft - Bundesamt für Gesundheit - BAG (<http://www.bag.admin.ch>) / Anmeldestelle Chemikalien (<http://www.cheminfo.ch>) / Informationssystem für gefährliche und umweltrelevante Stoffe - IGS (<http://igs.naz.ch/index.html>):

This product was not registered.

International chemical inventories
(Registration status on substances):

No data available

Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: propan-2-ol (isopropanol)

16. Other information

Changes

This version replaces all former issues.

Changes made in this revision see section: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

Abbreviations and acronyms

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

CAS: Chemical Abstracts Service.

DNEL: Derived No-Effect Level.

EC50: Effective concentration, 50 percent.

EC: European community.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European standard.

FDA: US-Food and Drug Administration.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA-DGR: International Air Transport Association Dangerous Goods Regulations.

IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).

IC50 / ErC50: Inhibitory concentration, 50 percent.

ICAO-TI: International Civil Aviation Organization Technical Instruction.

IMDG-Code: International Maritime Dangerous Goods Code.

ISO: A standard of International Standards Organisation.

LC50: Lethal concentration, 50 percent.

LD50: Lethal Dose, 50 percent.

log Kow (Pow): octanol-water partition coefficient.

MARPOL: Maritime Pollution Convention (Convention for the Prevention of Pollution from Ships).

OECD: Organisation for Economic Co-operation and Development.

PBT: Persistent, bioaccumulabe and toxic.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

PNEC: Predicted No-Effect Concentration.

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

UN: United Nations.

vPvB: Very persistent and very bioaccumulable.

Relevant R-phrases (Number and full text)

11 Highly flammable.

36 Irritating to eyes.

67 Vapours may cause drowsiness and dizziness.

Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH210 Safety data sheet available on request.

Further Information

Full text of all R-, H-, EUH-phrases which are referred to in section 2 and 3 of this safety data sheet - see previous list. These (this) R-, H-, EUH-phrases/R-, H-, EUH-phrase apply/applies to the substance(s) of content, however, it does not necessarily show the classification of the product.

Key literature references and sources for data:

The classification corresponds to current EC-lists, but is completed by statements of technical literature and company data.

Other public accessible sources:

Regulation (EC) No. 1907/2006 (REACH) in the valid version in each case

Regulation (EC) No. 1272/2008 (CLP) in the valid version in each case

Further information and practical guides on the internet:

European Chemical Substances Information System - ESIS (<http://esis.jrc.ec.europa.eu>)

European Chemicals Agency - ECHA (<http://echa.europa.eu>)

ECHA - Registered substances (<http://echa.europa.eu/de/information-on-chemicals/registered-substances>)

ECHA - Candidate List of Substances of Very High Concern for Authorisation

(<http://echa.europa.eu/de/candidate-list-table>)

ECHA - List of restrictions table

(<http://echa.europa.eu/de/addressing-chemicals-of-concern/restrictions/list-of-restrictions/list-of-restrictions-table>)

ECHA - Authorisation List

(<http://echa.europa.eu/hr/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list>)

ECHA - C&L Inventory (<http://echa.europa.eu/en/web/guest/regulations/clp/cl-inventory>)

eChemPortal (<http://www.echemportal.org>)

The access to European Union law - EUR-Lex (<http://eur-lex.europa.eu>)

Control of Substances Hazardous to Health Regulations - COSHH (<http://www.coshh-essentials.org.uk/Home.asp>)

Pollution Prevention and Control Act and Pollution Prevention and Control Regulations

Recommended restriction of application:

See under section 1.2 - Uses advised against.

Use this product only for intended purpose in accordance with our product informations.

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

Calculation method.

Safety Data Sheet

according to regulation (EU) No. 1907/2006

Trade name: picosep

Disclaimer:

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. The receiver of our product is singularly responsible for adhering to existing laws and regulations. All descriptions are approximate values, they are not specified for construction of specifications. This safety data sheet does not represent any operating instruction according to national chemical regulations. It may be used for creation, but must not replace it. The employer is not relieved from his duties. All technical information to occupational protection are directed predominately to experts first (safety engineers, occupational medicines).