

according to UK REACH Regulation

Page 1 of 18

Revision date: 24.02.2023

VAP 1000S

Print date: 13.03.2023

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

1.1. Product identifier

VAP 1000S

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

Use of the substance/mixture

Professional use.

Aerosol

Corrosion inhibitor

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Meusburger Georg GmbH & Co KG

Street: Kesselstrasse 42
Place: A-6960 Wolfurt

Telephone: +43 5574 6706-0 Telefax: +43 5574 6706-12

e-mail: office@meusburger.com Internet: www.meusburger.com

Responsible Department: Dr. Gans-Eichler e-mail: info@tge-consult.de

Chemieberatung GmbH Tel.: +49 2534 41594-0 Otto-Hahn-Str. 36 www.tge-consult.de

D-48161 Muenster

1.4. Emergency telephone Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

number:

Further Information

Safety Data Sheet according to UK-REACH Regulation

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Aerosol 1; H222-H229 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Danger

Pictograms:







according to UK REACH Regulation

Page 2 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

Hazard statements

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eve irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

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

smokina.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

Wear protective gloves/protective clothing/eye protection/face protection. P280 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to UK REACH. This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|------------------|---|-----------|
| EC No | GHS Classification | |
| REACH No | | |
| Index No | | |
| | | |
| 74-98-6 | propane | 25 - 50 % |
| 200-827-9 | Flam. Gas 1, Compressed gas; H220 H280 | |
| 01-2119486944-21 | | |
| 601-003-00-5 | | |
| 106-97-8 | butane | 25 - 50 % |
| 203-448-7 | Flam. Gas 1, Compressed gas; H220 H280 | |
| 01-2119474691-32 | | |
| 601-004-00-0 | | |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | 10 - 18 % |
| 265-151-9 | Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; | |
| 01-2119475133-43 | H225 H315 H336 H304 H411 | |
| 649-328-00-1 | | |

Revision No: 3,0 Print date: 13.03.2023 GB - en



according to UK REACH Regulation

Page 3 of 18

Revision date: 24.02.2023

VAP 1000S

Print date: 13.03.2023

| 1305-62-0 | calcium hydroxide | < 3 % |
|------------------|---|----------|
| 215-137-3 | Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H315 H318 H335 | |
| 01-2119475151-45 | · | |
| | | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | <= 1.1 % |
| 200-661-7 | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 | |
| 01-2119457558-25 | | |
| 603-117-00-0 | | |

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|------------------------------|---|-----------|
| | Specific Conc. | Limits, M-factors and ATE | |
| 74-98-6 | 200-827-9 | propane | 25 - 50 % |
| | inhalation: LC | 50 = 800000 ppm (gases) | |
| 106-97-8 | 203-448-7 | butane | 25 - 50 % |
| | inhalation: LC | 50 = >800000 (15min) ppm (gases) | |
| 64742-49-0 | 265-151-9 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | 10 - 18 % |
| | inhalation: LC mg/kg | 50 = >5,0 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 | |
| 1305-62-0 | 215-137-3 | calcium hydroxide | < 3 % |
| | inhalation: LC 2000 mg/kg | 50 = > 6,04 mg/l (dusts or mists); dermal: LD50 = > 2500 mg/kg; oral: LD50 = > | |
| 67-63-0 | 200-661-7 | propan-2-ol; isopropyl alcohol; isopropanol | <= 1.1 % |
| | dermal: LD50 | = > 5000 mg/kg; oral: LD50 = 5840 mg/kg | |

Further Information

Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha:

Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0.1 % w/w benzene (Einecs No 200-753-7).

Product does not contain listed SVHC substances > 0.1 % according to UK REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms,



according to UK REACH Regulation

Page 4 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

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

Following eye contact: Symptoms: reddening, irritation. Causes tears. Pain.

Following inhalation: Symptoms: Irritation to respiratory tract. Cough

Following skin contact: Symptoms: reddening, irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide (CO). Toxic metal oxide smoke.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Ventilate affected area. Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up



according to UK REACH Regulation

Page 5 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Heating causes rise in pressure with risk of bursting.

Advice on general occupational hygiene

Always close containers tightly after the removal of product.

Do not eat, drink, smoke or sneeze at the workplace.

Wash hands before breaks and after work.

Further information on handling

General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. - No smoking. Provide adequate ventilation.

Hints on joint storage

Do not store together with: Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Radioactive substances.

Infectious substances.

Further information on storage conditions

Recommended storage temperature: 10-30 °C. Do not store at temperatures over: 50 °C Note: Storage requirements for flammable aerosols.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



according to UK REACH Regulation

Page 6 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|-----------|-------------------|-----|-------|-----------|---------------|--------|
| 106-97-8 | Butane | 600 | 1450 | | TWA (8 h) | WEL |
| | | 750 | 1810 | | STEL (15 min) | WEL |
| 1305-62-0 | Calcium hydroxide | - | 5 | | TWA (8 h) | WEL |
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | STEL (15 min) | WEL |

DNEL/DMEL values

| CAS No | Substance | | | | | |
|--------------------------|--|-----------------------------------|----------|------------------|--|--|
| DNEL type | | Exposure route | Effect | Value | | |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point l | ng point hydrogen treated naphtha | | | | |
| Worker DNEL, | acute | inhalation | systemic | 1286,4 mg/m³ | | |
| Worker DNEL, | long-term | inhalation | local | 837,5 mg/m³ | | |
| Worker DNEL, | acute | inhalation | local | 1066,67 mg/m³ | | |
| Consumer DNE | EL, acute | inhalation | systemic | 1152 mg/m³ | | |
| Consumer DNE | EL, long-term | inhalation | local | 178,57 mg/m³ | | |
| Consumer DNE | EL, acute | inhalation | local | 640 mg/m³ | | |
| 1305-62-0 | calcium hydroxide | | | | | |
| Consumer DNE | EL, long-term | inhalation | local | 1 mg/m³ | | |
| Consumer DNE | EL, acute | inhalation | local | 4 mg/m³ | | |
| Worker DNEL, | long-term | inhalation | local | 1 mg/m³ | | |
| Worker DNEL, | acute | inhalation | local | 4 mg/m³ | | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | | - | | | |
| Worker DNEL, | long-term | inhalation | systemic | 500 mg/m³ | | |
| Consumer DNEL, long-term | | inhalation | systemic | 89 mg/m³ | | |
| Worker DNEL, long-term | | dermal | systemic | 888 mg/kg bw/day | | |
| Consumer DNE | EL, long-term | oral | systemic | 26 mg/kg bw/day | | |
| Consumer DNE | EL, long-term | dermal | systemic | 319 mg/kg bw/day | | |
| | | | | | | |

PNEC values

| CAS No | Substance | | |
|--|---|-------------|--|
| Environmen | tal compartment | Value | |
| 1305-62-0 calcium hydroxide | | | |
| Freshwater 0,37 mg/l | | | |
| Freshwater (intermittent releases) | | 0,37 mg/l | |
| Marine wate | г | 0,24 mg/l | |
| Micro-organisms in sewage treatment plants (STP) | | | |
| Soil | | 817,4 mg/kg | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | | |



according to UK REACH Regulation

Page 7 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

| Freshwater | 140,9 mg/l |
|--|------------|
| Freshwater (intermittent releases) | 140,9 mg/l |
| Marine water | 140,9 mg/l |
| Freshwater sediment | 552 mg/kg |
| Marine sediment | 552 mg/kg |
| Secondary poisoning | 160 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | 2251 mg/l |
| Soil | 28 mg/kg |

8.2. Exposure controls







Appropriate engineering controls

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

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material:

Butyl rubber. (0,5 mm)

Breakthrough time >480 min

Penetration time (maximum wearing period): >160 min

The selected protective gloves have to satisfy the specifications of the Personal Protective Equipment at Work (Amendment) Regulations 2022 and the standard EN ISO 374.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Protective clothing.

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

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Exceeding exposure limit values

Insufficient ventilation

Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

Use only respiratory protection equipment with CE-symbol including four digit test number.

Thermal hazards

No special precautionary measures are necessary.



according to UK REACH Regulation Page 8 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Aerosol
Colour: white
Odour: Benzene
Odour threshold: not determined

Melting point/freezing point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

Flammability: not determined Lower explosion limits: 0,6 vol. %

Upper explosion limits: -

Flash point:

Auto-ignition temperature:

Decomposition temperature:

pH-Value:

Viscosity / kinematic:

mot applicable

not applicable

not applicable

insoluble

Solubility in other solvents

not determined

Dissolution rate: not relevant Partition coefficient n-octanol/water: not determined Dispersion stability: not relevant Vapour pressure: 3500 hPa 1,4 g/cm³ Density: Bulk density: not determined Relative vapour density: not determined Particle characteristics: not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Sustaining combustion:

No data available

Self-ignition temperature

Solid: not relevant
Gas: not determined

Oxidizing properties

none

Other safety characteristics

Evaporation rate: not determined Solvent separation test: not determined Solvent content: not determined Solid content: not determined Sublimation point: not determined



Page 9 of 18

Safety Data Sheet

according to UK REACH Regulation

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

Softening point:

Pour point:

Viscosity / dynamic:

not determined

not determined

not determined

not determined

not determined

not determined

Further Information

Chemical heat of combustion in kJ/g: 31,99

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Refer to chapter 10.5.

10.4. Conditions to avoid

Keep away from heat.

Ignition hazard.

Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

Further information

In use, may form flammable/explosive vapour-air mixture.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

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

| CAS No | Chemical name | | | | | | |
|------------|---|-----------------------------|---------|--------------|----------|--|--|
| | Exposure route | Dose | Species | Source | Method | | |
| 74-98-6 | propane | | | | | | |
| | inhalation gas | LC50 800000 ppm | Rat | ECHA dossier | 15 min | | |
| 106-97-8 | butane | | | | | | |
| | inhalation gas | LC50 >800000 (15min) ppm | | ECHA dossier | | | |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | | | | | | |
| | oral | LD50 >5000 mg/kg | Rat | ECHA dossier | OECD 401 | | |



according to UK REACH Regulation

Page 10 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

| | dermal | LD50 mg/kg | >2000 | Rabbit | ECHA dossier | OECD 402 |
|-----------|-------------------------------|---------------|-----------|--------|--------------|---------------|
| | inhalation (4 h) vapour | LC50 | >5,0 mg/l | Rat | ECHA dossier | OECD 403 |
| 1305-62-0 | calcium hydroxide | | | | | |
| | oral | LD50 mg/kg | > 2000 | Rat | ECHA dossier | OECD 425 |
| | dermal | LD50 mg/kg | > 2500 | Rabbit | ECHA dossier | EU Method B.3 |
| | inhalation (4 h) dust/mist | LC50 mg/l | > 6,04 | Rat | ECHA dossier | OECD 436 |
| 67-63-0 | propan-2-ol; isopropyl al | cohol; isopr | opanol | | | |
| | oral | LD50 mg/kg | 5840 | Rat | ECHA dossier | |
| | dermal | LD50 mg/kg | > 5000 | Rabbit | ECHA dossier | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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.

propane:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) Result: negative.

Literature information: ECHA dossier

Reproductive toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the

Reproduction / Developmental Toxicity Screening Test)

Species: Rat Exposure duration: 6 w. Results: NOAEC = 12000 ppm

Literature information: ECHA dossier

Developmental toxicity/teratogenicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)Species: Rat Results: NOAEC = 12000 ppm

Literature information: ECHA dossier

butane:

In-vitro mutagenicity:

Method: OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)

Result: negative.

Literature information: ECHA dossier

Reproductive toxicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction /

Developmental Toxicity Screening Test)

Species: Rat

Results: NOAEC = 9000 ppm(21394 mg/m3)

Literature information: ECHA dossier Developmental toxicity/teratogenicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction /

Developmental Toxicity Screening Test)



according to UK REACH Regulation

Page 11 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

Species: Rat

Results: NOAEC = 9000 ppm. Literature information: ECHA dossier

Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha:

In-vitro mutagenicity:

Method: -Result: negative.

Literature information: ECHA dossier Reproductive toxicity: (inhalation.)

Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

Species: Rat

Result: NOAEL = 20000 mg/m3 Literature information: ECHA dossier

Developmental toxicity/teratogenicity: (inhalation.)

Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Species: Rabbit
Exposure duration: 20 d.
Result: NOAEL = 23900 mg/m3
Literature information: ECHA dossier

Carcinogenicity: Method: -Species: Mouse

Exposure duration: approx. 2 years

Result: negative.

Literature information: ECHA dossier

propan-2-ol; isopropyl alcohol; isopropanol:

In-vitro mutagenicity:

Method:

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

-OECD Guideline 474: Mammalian Erythrocyte Micronucleus Test

Result: negative.

Literature information: ECHA dossier

Carcinogenicity: No indications of human carcinogenicity exist.

Literature information: ECHA dossier

Reproductive toxicity:

Method: OECD Guideline 415 (One-Generation Reproduction Toxicity Study)

Species: Rat

Result: NOAEL = 853 mg/kg Literature information: ECHA dossier Developmental toxicity/teratogenicity:

Method: (oral.) OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Species: Rabbit

Result: NOAEL = 480 mg/kg

Literature information: ECHA dossier

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.



according to UK REACH Regulation

Page 12 of 18

Revision date: 24.02.2023

VAP 1000S

Print date: 13.03.2023

propane:

Subacute inhalative toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species: Rat Exposure duration: 6 w. Result: NOAEC

= 94000 ppm (7214 mg/m3)

Literature information: ECHA dossier

butane:

Subacute inhalative toxicity:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction/Developmental

Toxicity Screening Test)

Species: Rat

Exposure duration: 6 w.

Result: NOAEC = 9000 ppm(21394 mg/m3) Literature information: ECHA dossier

Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha:

Subchronic inhalation toxicity:

Method: OECD Guideline 453 (Combined Chronic Toxicity/Carcinogenicity Studies)

Species: Mouse

Exposure duration: 2 years Result: NOAEC = 1402 mg/m3 Literature information: ECHA dossier

Subacute oral toxicity:

Method: -Species: Rat

Exposure duration: 28 d
Results: NOAEL < 500 mg/kg
Literature information: ECHA dossier

propan-2-ol; isopropyl alcohol; isopropanol:

Chronic inhalative toxicity (Rat): NOAEC = 5000 ppm (OECD 451)

Literature information: ECHA dossier

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

Practical experience

Irritation of eyes and mucous membranes. Inhalation causes narcotic effects/intoxication.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

The product has not been tested.



Page 13 of 18

Safety Data Sheet

according to UK REACH Regulation

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

| CAS No | Chemical name | | | | | | | | |
|------------|---|----------------|----------|-----------|---|--|----------|--|--|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method | | |
| 74-98-6 | propane | | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 49,9 | 96 h | Fish | ECHA dossier | | | |
| | Acute algae toxicity | ErC50 mg/l | 19,37 | 96 h | algae | ECHA dossier | | | |
| | Acute crustacea toxicity | EC50 mg/l | 69,43 | 48 h | Daphnia magna | ECHA dossier | | | |
| 106-97-8 | butane | | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 49,9 | 96 h | Fish | ECHA dossier | | | |
| | Acute algae toxicity | ErC50 mg/l | 19,37 | 96 h | algae | ECHA dossier | | | |
| | Acute crustacea toxicity | EC50 mg/l | 69,43 | 48 h | Daphnia magna | ECHA dossier | | | |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | | | | | | | | |
| | Acute fish toxicity | LL50 mg/l | > 1-10 | 96 h | Pimephales promelas | ECHA dossier | | | |
| | Acute algae toxicity | ErC50 | 3,1 mg/l | 72 h | Pseudokirchnerella subcapitata | ECHA dossier | | | |
| | Acute crustacea toxicity | EC50 | 4,5 mg/l | 48 h | Dapnia Magna | ECHA dossier | | | |
| | Crustacea toxicity | NOEC | 2,6 mg/l | 21 d | Dapnia Magna | ECHA dossier | OECD 211 | | |
| 1305-62-0 | calcium hydroxide | | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 50,6 | 96 h | Oncorhynchus mykiss | ECHA dossier | OECD 203 | | |
| | Acute algae toxicity | ErC50 mg/l | 184,57 | 72 h | Pseudokirchneriella subcapitata | ECHA dossier | OECD 201 | | |
| | Acute crustacea toxicity | EC50 mg/l | 49,1 | 48 h | Daphnia magna | ECHA dossier | OECD 202 | | |
| | Crustacea toxicity | NOEC | 32 mg/l | 14 d | Crangon septemspinosa | Aquatic Invasions (2009) Volume 4, Issue | | | |
| | Acute bacteria toxicity | (EC50 mg/l) | 300,4 | 3 h | activated sludge of a predominantly domestic sewage | ECHA dossier | OECD 209 | | |
| 67-63-0 | propan-2-ol; isopropyl alc | ohol; isopro | panol | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 10000 | 96 h | Pimephales promelas | ECHA dossier | OECD 203 | | |
| | Acute algae toxicity | ErC50 mg/l | 1800 | | Scenedesmus quadricauda | ECHA dossier | | | |
| | Acute crustacea toxicity | EC50 mg/l | >10000 | 48 h | Daphnia magna (24h) | ECHA dossier | OECD 202 | | |

12.2. Persistence and degradability

The product has not been tested.

| | CAS No | Chemical name | | | |
|--|--------|---------------|-------|---|--------|
| | | Method | Value | d | Source |



according to UK REACH Regulation

Page 14 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

| | Evaluation | | | | | |
|------------|---|--|--|--|--|--|
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | | | | | |
| | OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D >70 28 ECHA dossier | | | | | |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | | | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | | | | | |
| | EU Method C.5/ EU Method C.6 53% 5 ECHA dossier | | | | | |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | | | |

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|------------|---|---------|
| 74-98-6 | propane | 2,36 |
| 106-97-8 | butane | 1,09 |
| 64742-49-0 | Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha | >3 |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | 0,05 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|-----------|-------------------|------|-----------------------|----------------------|
| 1305-62-0 | calcium hydroxide | 3,55 | Lolium perenne cv Nui | Communications in So |

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; gases in pressure containers (including halons) containing hazardous

substances; hazardous waste



according to UK REACH Regulation

Page 15 of 18

Revision date: 24.02.2023

VAP 1000S

Print date: 13.03.2023

List of Wastes Code - used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; gases in pressure containers (including halons) containing hazardous

substances; hazardous waste

List of Wastes Code - contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately

collected municipal packaging waste); metallic packaging

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1950 **14.2. UN proper shipping name:** AEROSOLS

14.3. Transport hazard class(es):214.4. Packing group:-Hazard label:2.1



Classification code: 5F

Special Provisions: 190 327 344 625

Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1950 **14.2. UN proper shipping name:** AEROSOLS

14.3. Transport hazard class(es):214.4. Packing group:-Hazard label:2.1



Classification code: 5F

Special Provisions: 190 327 344 625

Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number or ID number:UN 195014.2. UN proper shipping name:AEROSOLS

14.3. Transport hazard class(es):2.114.4. Packing group:-Hazard label:2.1



according to UK REACH Regulation

Page 16 of 18

Revision date: 24.02.2023

VAP 1000S

Print date: 13.03.2023



Marine pollutant: NO

Special Provisions: 63, 190, 277, 327, 344, 381, 959

Limited quantity: 1000 mL Excepted quantity: E0 EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1950

14.2. UN proper shipping name: AEROSOLS, FLAMMABLE

 14.3. Transport hazard class(es):
 2.1

 14.4. Packing group:

 Hazard label:
 2.1



Special Provisions: A145 A167 A802

Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0

IATA-packing instructions - Passenger:203IATA-max. quantity - Passenger:75 kgIATA-packing instructions - Cargo:203IATA-max. quantity - Cargo:150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Refer to section 6 - 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

EU regulatory information

Restrictions on use (REACH, annex XVII): Entry 3, Entry 29, Entry 40, Entry 75

2010/75/EU (VOC): 50 - 70 % 2004/42/EC (VOC): > 90 %

Information according to 2012/18/EU P3a FLAMMABLE AEROSOLS

(SEVESO III):

Additional information

Safety Data Sheet according to UK-REACH Regulation

UK Aerosols Regulation

UK REACH Appendix XVII, No (mixture): 3, 40



according to UK REACH Regulation

Page 17 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

The mixture is classified as hazardous according to GHS (GB CLP).

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

propane

Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha

calcium hydroxide

propan-2-ol; isopropyl alcohol; isopropanol

SECTION 16: Other information

Changes

Rev. 1,0; Initial release: 31.01.2019

Rev. 2,0; Revision: 02.04.2020 Changes in chapter: 2-16 Rev. 3,0; Revision: 24.02.2023 Changes in chapter: 1-16

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement

concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labeling, Packaging

DNEL: Derived No Effect Level

d: day(s)

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

ECOSAR: Ecological Structure Activity Relationships

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

IUCLID: International Uniform ChemicaL Information Database

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

OECD: Organisation for Economic Co-operation and Development

PNEC: Predicted No Effect Concentration PBT: Persistent, bio-cumulative, toxic

QSAR: Quantitative Structure-Activity Relationship

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

RTECS: Registry of Toxic Effects of Chemical Substances

SVHC: Substance of Very High Concern TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

vPvB: very persistent and very bio-cumulative



according to UK REACH Regulation

Page 18 of 18

Print date: 13.03.2023 Revision date: 24.02.2023

VAP 1000S

VOC: Volatile Organic Compounds

w: week(s)

Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure | | | |
|-------------------------|-------------------------------|--|--|--|
| Aerosol 1; H222-H229 | On basis of test data | | | |
| Skin Irrit. 2; H315 | Bridging principle "Aerosols" | | | |
| Eye Irrit. 2; H319 | Bridging principle "Aerosols" | | | |
| Aquatic Chronic 3; H412 | Calculation method | | | |

Relevant H and EUH statements (number and full text)

| H220 | Extremely flammable gas. | | |
|------|---|--|--|
| H222 | Extremely flammable aerosol. | | |
| H225 | Highly flammable liquid and vapour. | | |
| H229 | Pressurised container: May burst if heated. | | |
| H280 | Contains gas under pressure; may explode if heated. | | |
| H304 | May be fatal if swallowed and enters airways. | | |
| H315 | Causes skin irritation. | | |
| H318 | Causes serious eye damage. | | |
| H319 | Causes serious eye irritation. | | |
| H335 | May cause respiratory irritation. | | |
| H336 | May cause drowsiness or dizziness. | | |
| H411 | Toxic to aquatic life with long lasting effects. | | |
| H412 | Harmful to aquatic life with long lasting effects. | | |
| | | | |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)