

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

HEATSAVR (EF)

Version 2.0

Print Date 2023/12/20

Revision date / valid from 2023/12/20

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

1.1. Product identifier : HEATSAVR (EF) Trade name 1.2. Relevant identified uses of the substance or mixture and uses advised against Use of the Swimming pool water treatment : Substance/Mixture Uses advised against : At this moment we have not identified any uses advised against 1.3. Details of the supplier of the safety data sheet Company : **Brenntag UK Limited** Alpha House, Lawnswood Business Park GB LS16 6QY Leeds Telephone : +44 (0) 113 3879 200 Telefax : +44 (0) 113 3879 280 E-mail address : msds@brenntag.co.uk **Emergency telephone number** 1.4. Emergency telephone Emergency only telephone number (open 24 hours): : +44 (0) 1865 407333 (N.C.E.C. Culham) number **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

Classification according to Regulation S.I. 2019/720 (GB CLP)

| Regulation S.I. 2019/720 (GB CLP) | | | |
|---|-----------------|---------------------------|-------------------|
| Hazard class | Hazard category | Target Organs | Hazard statements |
| Flammable liquids | Category 2 | | H225 |
| Eye irritation | Category 2 | | H319 |
| Specific target organ toxicity - single exposure | Category 3 | Central nervous system | H336 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

50000026280



| Most | important | adverse | effects |
|------|-----------|---------|---------|
|------|-----------|---------|---------|

| Human Health | : | See section 11 for toxicological information. |
|----------------------------------|---|---|
| Physical and chemical hazards | : | See section 9/10 for physicochemical information. |
| Potential environmental effects | : | See section 12 for environmental information. |

2.2. Label elements

| Labelling according | o Reg | ulation S.I. 2019/ | 720 (GB CLP) |
|--------------------------|--------|---|--|
| Hazard symbols | : | | ! |
| Signal word | : | Danger | |
| Hazard statements | : | H225 H319 H336 | Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. |
| Precautionary statements | | | |
| Prevention | : | P210 P233 P261 P280 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Avoid breathing mist or vapours. Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. |
| Response | : | P303 + P361 + P370 + P378 P305 + P351 + | P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. |
| Hazardous componen | ts whi | ch must be listed | I on the label: |
| • propan-2-ol | | | |
| | | | |

🔒 BRENNTAG

HEATSAVR (EF)

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | | | | ification 2019/720 (GB CLP)) |
|---|---|------------------|--|---------------------------------|
| Haza | rdous components | Amount [%] | Hazard class / Hazard category | Hazard statements |
| propan-2-ol | | | | |
| Index-No. CAS-No. EC-No. EU REACH- Reg. No. | : 603-117-00-0 : 67-63-0 : 200-661-7 : 01-2119457558-25-xxxx | >= 50 - <= 99.99 | Flam. Liq.2 Eye Irrit.2 STOT SE3 | H225 H319 H336 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

| General advice | : Remove from exposure, lie down. Take off all contaminated clothing immediately. | |
|---------------------------|--|----|
| If inhaled | : Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position. If symptoms persist, call a physician. | |
| In case of skin contact | : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. | |
| In case of eye contact | : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist | |
| 50000026280 / Version 2.0 | 3/20 | EN |



| | | immediately. Go to an ophthalmic hospital if possible. |
|------|--|--|
| | If swallowed | : Rinse mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Call a physician immediately. |
| | Protection of First Aid Responders | : First Aid responders should pay attention to self-protection and use the recommended protective clothing. |
| 4.2. | Most important symptoms | and effects, both acute and delayed |
| | Symptoms | : See Section 11 for more detailed information on health effects and symptoms. |
| | Effects | : See Section 11 for more detailed information on health effects and symptoms. |
| 4.3. | Indication of any immedia | te medical attention and special treatment needed |
| | Treatment | : Treat symptomatically.For specialist advice physicians should contact the Poisons Information Service. |
| 5.1. | TION 5: Firefighting meas Extinguishing media | |
| | Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. ABC powder, Foam, Carbon dioxide (CO2) |
| | Unsuitable extinguishing media | : High volume water jet |
| 5.2. | Special hazards arising fro | om the substance or mixture |
| | Specific hazards during firefighting | : The vapour may be invisible, heavier than air and spread along ground. Vapours may form explosive mixtures with air. Flash back possible over considerable distance. |
| | Hazardous combustion products | Carbon monoxide, Carbon dioxide (CO2), Heating or fire can release toxic gas. |
| 5.3. | Advice for firefighters | |
| | Special protective equipment for firefighters Further advice | In the event of fire, wear self-contained breathing apparatus.Wear personal protective equipment. Cool closed containers exposed to fire with water spray.Heating will cause a pressure rise - with risk of bursting.Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |
| SEC | TION 6: Accidental releas | se measures |
| | | |

50000026280 / Version 2.0



| 6.1. | Personal precautions, pro | tective equipment and emergency procedures | |
|------|--|--|----|
| | Personal precautions | Keep away from heat and sources of ignition. Use personal protective equipment. Keep away unprotected persons. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. | |
| 6.2. | Environmental precaution | S | |
| | Environmental precautions | : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. | |
| 6.3. | Methods and materials for | containment and cleaning up | |
| | Methods and materials for containment and cleaning up | : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. | |
| | Further information | : Treat recovered material as described in the section "Disposal considerations". | |
| 6.4. | Reference to other section | IS | |
| | See Section 1 for emerger See Section 8 for informati See Section 13 for waste t | ion on personal protective equipment. | |
| SEC | TION 7: Handling and sto | orage | |
| 7.1. | Precautions for safe hand | ling | |
| | Advice on safe handling | : Keep container tightly closed. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity. | |
| | Hygiene measures | : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. | |
| 7.2. | Conditions for safe storag | e, including any incompatibilities | |
| | Requirements for storage areas and containers | : Store in original container. Keep in an area equipped with solvent resistant flooring. | |
| | Advice on protection against fire and explosion | : Keep away from sources of ignition - No smoking. The vapour may be invisible, heavier than air and spread along ground. Vapours may form explosive mixtures with air. Take measures to prevent the build up of electrostatic charge. Use only in an area containing explosion proof equipment. | |
| 5000 | 00026280 / Version 2.0 | 5/20 | EN |



| Further information on storage conditions | : Keep tightly closed in a dry and cool place. Keep away from direct sunlight. Keep in a well-ventilated place. |
|---|---|
| Advice on common storage | Incompatible with oxidizing agents. Do not store together with oxidizing and self-igniting products. Keep away from food, drink and animal feedingstuffs. |
| Storage period | : < 24 Months |
| Storage temperature | : 0 - 40 °C |
| 7.3. Specific end use(s) | |
| Specific use(s) | : No information available. |
| | |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Component: | propan-2-ol | | CAS-No. 67-63-0 |
|---------------------------------|----------------------------------|----------|------------------|
| Derived No Eff | ect Level (DNEL)/Derived Minii | nal Effe | ect Level (DMEL) |
| DNEL Workers, Long-term - sy | stemic effects, Skin contact | : | 888 mg/kg bw/day |
| DNEL Workers, Long-term - sy | stemic effects, Inhalation | : | 500 mg/m3 |
| DNEL Consumers, Long-term | - systemic effects, Skin contact | : | 319 mg/kg bw/day |
| DNEL Consumers, Long-term | - systemic effects, Inhalation | : | 89 mg/m3 |
| DNEL Consumers, Long-term | - systemic effects, Ingestion | : | 26 mg/kg bw/day |
| P | redicted No Effect Concentrati | on (PN | EC) |
| Fresh water | | : | 140.9 mg/l |
| Marine water | | : | 140.9 mg/l |
| Intermittent releases | | : | 140.9 mg/l |
| Sewage treatment plant | (STP) | : | 2251 mg/l |
| 0000026280 / Version 2.0 | 6/20 | | |

Sediment

Soil

: 552 mg/kg d.w.

BRENNTAG

: 28 mg/kg

Secondary poisoning

: 160 mg/kg food

Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), as amended, Time Weighted Average (TWA): 400 ppm, 999 mg/m3

UK. EH40 Workplace Exposure Limits (WELs), as amended, Short Term Exposure Limit (STEL): 500 ppm, 1,250 mg/m3, (15 minutes)

ELV (IE), Skin designation: Can be absorbed through the skin.

ELV (IE), Time Weighted Average (TWA): 200 ppm

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Ensure that eyewash stations and safety showers are close to the workstation location. **Personal protective equipment**

Respiratory protection

| 500000026280 / Version 2.0 | 7/20 | Е |
|---|---|----|
| Material Break through time Glove thickness | : LLDPE : > 480 min : 0.062 mm | |
| Advice | Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Protective gloves should be replaced at first signs of wear. | S. |
| Advice Hand protection | In case of insufficient ventilation, wear suitable respiratory equipment. When aerosol or mist is formed use suitable respiratory protection Respiratory protection complying with EN 141. Combination filter: A-P2 | |
| | | |

BRENNTAG

| Eye protection | |
|--|---|
| | Safety goggles |
| Skin and body protection | |
| Advice : \ | Near personal protective equipment. |
| Environmental exposure co | ontrols |
| | Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. |
| ECTION 9: Physical and che | mical properties |
| 1 Information on basic physica Form | I and chemical properties : Liquid |
| Physical state | : liquid |
| Colour | : blue |
| Odour | : No data available |
| Odour Threshold | : No data available |
| Freezing point | : No data available |
| Boiling point/boiling range | : 84 °C |
| Flammability | : No data available |
| Upper explosion limit / Upper flammability limit | : No data available |
| Lower explosion limit / Lower flammability limit | : No data available |
| Flash point | : 19 °C |
| Auto-ignition temperature | : 399 °C |
| Decomposition temperature | : No data available |
| Self-Accelerating decomposition temperature (SADT) | : No data available |
| рН | : 4 - 6 |
| Viscosity Viscosity, dynamic | : 1.82 mPa.s (20 °C) |
| 0000026280 / Version 2.0 | 8/20 |

BRENNTAG

| Viscosity, kinematic | : 2.25 mm2/s (20 °C) |
|---|--|
| Flow time | : No data available |
| Water solubility | : No data available |
| Solubility in other solvents | : No data available |
| Dissolution Rate | : No data available |
| Partition coefficient: n- octanol/water | : No data available |
| Dispersion Stability | : No data available |
| Vapour pressure | : 4236 Pa (20 °C) |
| | 21456.94 Pa (50 °C) |
| Relative density | : 0.811 |
| Density | : 811 kg/m3 (20 °C) |
| Bulk density | : No data available |
| Relative vapour density | : No data available |
| Particle characteristics No data available | |
| 9.2 Other information | |
| No data available | |
| SECTION 10: Stability and rea | ctivity |
| 10.1. Reactivity | |
| Advice | : No decomposition if stored and applied as directed. |
| 10.2. Chemical stability | |
| Advice | : Stable under recommended storage conditions. |
| 10.3. Possibility of hazardous re | actions |
| Hazardous reactions | : No dangerous reaction known under conditions of normal use. |
| 10.4. Conditions to avoid | |
| Conditions to avoid | : Heat, flames and sparks.Extremely high or low temperatures. |
| 10.5. Incompatible materials | |
| Materials to avoid | : Strong oxidizing agents, Incompatible with strong acids and bases. |
| 50000026280 / Version 2.0 | 9/20 EM |



10.6. Hazardous decomposition products

Hazardous decomposition : Under fire conditions: Carbon oxides products

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

| | Acute toxicity |
|-----------------------|------------------------------------|
| | Oral |
| | No data available |
| | Inhalation |
| | No data available |
| | Dermal |
| | No data available |
| | Irritation |
| | Skin |
| | No data available |
| | Eyes |
| Result | : (Causes serious eye irritation.) |
| | Sensitisation |
| | No data available |
| | CMR effects |
| | CMR Properties |
| Carcinogenicity | : No data available |
| Mutagenicity | : No data available |
| Reproductive toxicity | : No data available |
| | Specific Target Organ Toxicity |
| | Single exposure |
| 0026280 / Version 2.0 | 10/20 |

| | BREN | INT/ |
|------------------|--|---------|
| TSAVR (EF) |) | |
| Remarks | : May cause drowsiness or dizziness. | |
| | Repeated exposure | |
| | No data available | |
| | Other toxic properties | |
| | Repeated dose toxicity | |
| | No data available | |
| | Aspiration hazard | |
| | No data available | |
| omponent: | propan-2-ol CAS-No | . 67-63 |
| | Acute toxicity | |
| | Oral | |
| LD50 | : 5840 mg/kg (Rat) (OECD Test Guideline 401) | |
| | Inhalation | |
| LC50 | : > 25 mg/l (Rat; 6 h; vapour) (OECD Test Guideline 403) | |
| | Dermal | |
| LD50 | : 13900 mg/kg (Rabbit) (OECD Test Guideline 402) | |
| | Irritation | |
| | Skin | |
| Result | : No skin irritation (OECD Test Guideline 404)Degreases the which may cause dry and rough. Prolonged or repeated s contact may result in dermatitis. | |
| | Eyes | |
| Result | : Eye irritation (OECD Test Guideline 405)Splashes in eyes cause strong pain. Vapour acts irritant. | ; may |
| | Sensitisation | |
| Result | : not sensitizing (Buehler Test; Dermal; Guinea pig) (OECD Guideline 406) |) Test |
| 0026280 / Versio | | |

| | CMR effects |
|---|--|
| | Carcinogenicity |
| NOEL | 5,000 ppm (negative, Mouse, male and female)(Inhalation; 0, 500, 2500, 5000 ppm; 78 weeks; Frequency of treatment: 5 days/week)(OECD Tes Guideline 451) |
| | CMR Properties |
| Carcinogenicity Mutagenicity Teratogenicity | Based on available data, the classification criteria are not met. In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects No effects on or via lactation |
| Reproductive toxicity | : Based on available data, the classification criteria are not met. |
| | Genotoxicity in vitro |
| Result | negative (Bacterial Reverse Mutation Test; Salmonella typhimurium; with and without metabolic activation) (OECD Test Guideline 471) negative (In vitro gene mutation study in mammalian cells; CHO (Chinese Hamster Ovary) cells; with and without metabolic activation) (OECD Test Guideline 476) |
| | Genotoxicity in vivo |
| Result | : negative (In vivo micronucleus test; Mouse, male and female) (intraperitoneal;) (OECD Test Guideline 474) |
| | Teratogenicity |
| NOAEL Maternal | : 400 mg/kg bw/day |
| NOAEL Develop. | 400 mg/kg bw/day (Rat, Sprague-Dawley)(Oral)(OECD Test Guideline 414)No adverse effects |
| | Reproductive toxicity |
| NOAEL Parent | : 853 mg/kg bw/day |
| NOAEL Parent | (One-Generation Reproduction Toxicity Study; Rat, wistar, male and female)(Oral)(OECD Test Guideline 415)No negative effects. 500 mg/kg bw/day |
| 0026280 / Version 2.0 | 12/20 |

BRENNTAG



| (Two-generation reproductive toxicity; Rat, Sprague-Dawley, male and female)(Oral)(OECD Test Guideline 416)No negative effects. Specific Target Organ Toxicity Single exposure Inhalation : Target Organs: Central nervous systemMay cause drowsiness or dizziness. Repeated exposure Remarks : Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
|---|
| Single exposure Inhalation : Target Organs: Central nervous systemMay cause drowsiness or dizziness. Repeated exposure Remarks : Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard Aspiration hazard fi swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Inhalation : Target Organs: Central nervous systemMay cause drowsiness or dizziness. Repeated exposure Repeated exposure Remarks : Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| dizziness. Repeated exposure Remarks : Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Remarks : Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Endocrine disrupting properties Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| organ effects in male rats (kidney) and male and female mice (thyroid) by mechanisms of action that are not relevant to humans Other toxic properties Aspiration hazard Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Endocrine disrupting properties Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Aspiration hazard Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Aspiration hazard if swallowed - can enter lungs and cause damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Endocrine disrupting properties Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| damage. Aspiration may cause pulmonary oedema and pneumonitis. Based on available data, the classification criteria are not met., 11.2. Information on other hazards Data for the product Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Data for the product Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Endocrine disrupting properties Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| |
| Component: propan-2-ol CAS-No. 67-63-0 |
| Endocrine disrupting properties |
| Assessment : No information available about endocrine disruption properties for human health. |
| SECTION 12: Ecological information |
| 12.1. Toxicity |
| Component: propan-2-ol CAS-No. 67-63-0 |
| Acute toxicity |
| 50000026280 / Version 2.0 13/20 E |



| | Fish | |
|---|--|--------|
| LC50 | : 9,640 mg/l (Pimephales promelas, mortality; 96 h) (flow-through test; OECD Test Guideline 203) | |
| т | oxicity to daphnia and other aquatic invertebrates | |
| LC50 | : 9,714 mg/l (Daphnia magna, mortality; 24 h) (static test; OECD Test Guideline 202) | |
| | algae | |
| EC50 LOEC | > 100 mg/l (Scenedesmus subspicatus; 72 h) 1000 mg/l (algae; 8 d) | |
| | Bacteria | |
| | : > 100 mg/l (Bacteria) no harming action | |
| EC50 | | |
| 2. Persistence and de | | 2-0 |
| | propan-2-ol CAS-No. 67-63 | 3-0 |
| 2. Persistence and de | | 3-0 |
| 2. Persistence and de | propan-2-ol CAS-No. 67-63 Persistence and degradability | 3-0 |
| 2. Persistence and de Component: | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. | 3-0 |
| 2. Persistence and de Component: | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. | |
| 2. Persistence and de Component: Result | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Biodegradability : 53 % (aerobic; domestic sewage; Related to: O2 consumption; Exposure Time: 5 d)(Directive 67/548/EEC, Annex V, C.5)Readi biodegradable. | |
| 2. Persistence and de Component: Result Result | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Biodegradability : 53 % (aerobic; domestic sewage; Related to: O2 consumption; Exposure Time: 5 d)(Directive 67/548/EEC, Annex V, C.5)Readi biodegradable. | |
| 2. Persistence and de Component: Result Result .3. Bioaccumulative po | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Biodegradability : 53 % (aerobic; domestic sewage; Related to: O2 consumption; Exposure Time: 5 d)(Directive 67/548/EEC, Annex V, C.5)Readi biodegradable. otential | |
| 2. Persistence and de Component: Result Result .3. Bioaccumulative po | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Biodegradability : 53 % (aerobic; domestic sewage; Related to: O2 consumption; Exposure Time: 5 d)(Directive 67/548/EEC, Annex V, C.5)Readi biodegradable. otential propan-2-ol CAS-No. 67-63 | |
| 2. Persistence and de Component: Result Result 3. Bioaccumulative po | propan-2-ol CAS-No. 67-63 Persistence and degradability Persistence : Transformation due to hydrolysis not expected to be significant. Transformation due to photolysis not expected to be significant. Biodegradability : 53 % (aerobic; domestic sewage; Related to: O2 consumption; Exposure Time: 5 d)(Directive 67/548/EEC, Annex V, C.5)Readi biodegradable. otential propan-2-ol CAS-No. 67-63 Bioaccumulation : log Kow 0.05 (25 °C) | уу |

| Component: | propan-2-ol | CAS-No. 67-63- |
|---|---|--|
| | Mobility | |
| Water Soil | The product is water soluble.Mobile in soils | |
| | d vPvB assessment | |
| Data for the produ | | |
| | Results of PBT and vPvB assessmen | lt |
| Result | : This substance/mixture contains no content of the persistent, bioaccumulative and persistent and very bioaccumulative (with higher. | l toxic (PBT), or very |
| Component: | propan-2-ol | CAS-No. 67-63- |
| | Results of PBT and vPvB assessmen | t |
| Result | | |
| Result Endocrine disrupt | : This substance is not considered to be nor toxic (PBT)., This substance is no persistent and very bioaccumulating (| e persistent, bioaccumulatin t considered to be very |
| Endocrine disrupt | : This substance is not considered to be nor toxic (PBT)., This substance is no persistent and very bioaccumulating (ting properties | e persistent, bioaccumulatin t considered to be very |
| | : This substance is not considered to be nor toxic (PBT)., This substance is no persistent and very bioaccumulating (ting properties | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or |
| Endocrine disrupt Data for the produ Endocrine disrupt | This substance is not considered to be nor toxic (PBT)., This substance is no persistent and very bioaccumulating (sting properties Interstance Interstance<!--</td--><td>e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 15 at levels of 0.1% or highe</td> | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 15 at levels of 0.1% or highe |
| Endocrine disrupt Data for the produ Endocrine disrupt potential | This substance is not considered to be nor toxic (PBT)., This substance is not persistent and very bioaccumulating (sting properties Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 5 at levels of 0.1% or highe CAS-No. 67-63- |
| Endocrine disrupt Data for the produce Endocrine disrupt potential | This substance is not considered to be nor toxic (PBT)., This substance is not persistent and very bioaccumulating (sting properties Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating properties a 57(f) or Commission Delegated regula Commission Regulation (EU) 2018/60 Interstand very bioaccumulating (sting standard very bioaccumulating properties) Interstand very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (standard very bioaccumulating standard very bioaccumulating | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 5 at levels of 0.1% or highe CAS-No. 67-63- |
| Endocrine disrupt | This substance is not considered to be nor toxic (PBT)., This substance is not persistent and very bioaccumulating (sting properties Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating properties a 57(f) or Commission Delegated regula Commission Regulation (EU) 2018/60 Interstand very bioaccumulating (sting standard very bioaccumulating properties) Interstand very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (standard very bioaccumulating standard very | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 5 at levels of 0.1% or highe CAS-No. 67-63 |
| Endocrine disrupt Data for the produce Endocrine disrupt potential | This substance is not considered to be nor toxic (PBT)., This substance is not persistent and very bioaccumulating (sting properties Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating properties a 57(f) or Commission Delegated regula Commission Regulation (EU) 2018/60 Interstand very bioaccumulating (sting standard very bioaccumulating properties) Interstand very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (sting standard very bioaccumulating (sting standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating standard very bioaccumulating (standard very bioaccumulating standard very | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 5 at levels of 0.1% or highe CAS-No. 67-63- |
| Endocrine disrupt Data for the produce Endocrine disrupt potential | This substance is not considered to be nor toxic (PBT)., This substance is not persistent and very bioaccumulating (sting properties Interstand very bioaccumulating (sting properties) Interstand very bioaccumulating properties a 57(f) or Commission Delegated regula Commission Regulation (EU) 2018/60 Propan-2-ol Interstand very bioaccumulating (sting standard standard | e persistent, bioaccumulatin t considered to be very vPvB). ain components considered according to REACH Article ation (EU) 2017/2100 or 05 at levels of 0.1% or highe CAS-No. 67-63- rine disruption properties for |

BRENNTAG

| Co | | | |
|---------|--|---|--|
| | omponent: | | CAS-No. 67-63-0 |
| | | Additional ecological information | |
| | Result : | Do not flush into surface water or sanitary sewer Avoid subsoil penetration. | system. |
| SECTI | ION 13: Disposal con | siderations | |
| 13.1. V | Waste treatment metho | ds | |
| | Product | : Disposal together with normal waste is not a disposal required according to local regulatic product enter drains. Contact waste disposal product shall be disposed of or recovered in Directive 2008/98/EC on waste as lastly ame | ons. Do not let I services. This compliance with |
| | Contaminated packagin | g : Empty contaminated packagings thoroughly. recycled after thorough and proper cleaning. practicable, dispose of in compliance with loo Do not burn, or use a cutting torch on, the er explosion. | If recycling is not cal regulations. |
| | European Waste Catalogue Number | : No waste code according to the European W can be assigned for this product, as the inter the assignment. The waste code is establish with the regional waste disposer. | nded use dictates |
| | ION 14: Transport info | | |
| 14.1. l | UN number or ID numbe | er | |
| | | | |
| | 1993 | | |
| 14.2 | | ame | |
| 14.2. | UN proper shipping na | | |
| 14.2. | UN proper shipping na ADR : FLAMMAR (Isopropa | BLE LIQUID, N.O.S. nol) | |
| 14.2. | UN proper shipping na ADR : FLAMMAI (Isopropar Special Pr RID : FLAMMAI (Isopropar | BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) | |
| 14.2. | UN proper shipping na ADR : FLAMMA (Isopropar Special Pr RID : FLAMMA (Isopropar Special Pr Special Pr | BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. | |
| | UN proper shipping na ADR : FLAMMAR (Isopropar Special Pr RID : FLAMMAR (Isopropar Special Pr Special Pr IMDG : FLAMMAR | BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) | |
| | UN proper shipping na ADR : FLAMMAI (Isopropar Special Pr RID : FLAMMAI (Isopropar Special Pr IMDG : FLAMMAI (Isopropar IMDG : FLAMMAI (Isopropar Transport hazard class(ADR-Class (Labels; Classification C Identification Number; T | BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) (es) : 3 Code; Hazard : 3: F1: 33: (D/E) | |
| | UN proper shipping na ADR : FLAMMAI (Isopropa Special Pr RID : FLAMMAI (Isopropa Special Pr IMDG : FLAMMAI (Isopropa Special Pr IMDG : FLAMMAI (Isopropa Transport hazard class(ADR-Class (Labels; Classification C | BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) rovision 640D BLE LIQUID, N.O.S. nol) (es) : 3 Code; Hazard : 3: F1: 33: (D/E) | |

BRENNTAG

BRENNTAG

| | (Labels; Classification Code; I Identification Number) | Hazard | 3; F1; 33 | |
|------|---|--|--|---|
| | IMDG-Class | : | 3 | |
| | (Labels; EmS) | | 3; F-E, <u>S-E</u> | |
| 1.4. | Packaging group | | | |
| | ADR : II | | | |
| | RID : II | | | |
| | IMDG : II | | | |
| 1.5. | Environmental hazards | | | |
| | Environmentally hazardous ac | | : no | |
| | Environmentally hazardous ac | | : no | |
| | Marine Pollutant according to | IMDG-Code | : no | |
| 1.6. | Special precautions for user | | | |
| | Not applicable. | | | |
| 4.7 | Maritime transport in bulk a | ccording to IMC |) instruments | |
| | Not applicable for product as | supplied. | | |
| | FION 15: Regulatory inform Safety, health and environme mixture | | /legislation specific for the substance or | |
| 5.1. | Safety, health and environme mixture | ntal regulations | | 1 |
| 5.1. | Safety, health and environme | | /legislation specific for the substance or CAS-No. 67-63-0 | 1 |
| 5.1. | Safety, health and environme mixture | ntal regulations | | 1 |
| 5.1. | Safety, health and environme mixture EU. Chemicals Subject : to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended EU. REACH, Annex XVII, : Marketing and Use | ntal regulations | CAS-No. 67-63-0 | |
| 5.1. | Safety, health and environme mixture EU. Chemicals Subject : to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended EU. REACH, Annex XVII, : | ntal regulations | CAS-No. 67-63-0 e/mixture does not fall under this legislation. | |
| 5.1. | Safety, health and environme mixture Component: EU. Chemicals Subject : to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended EU. REACH, Annex XVII, : Marketing and Use Restrictions (Regulation | propan-2-ol ; The substanc Point Nos.: , 40 Point Nos.: , 75 Point Nos.: , 3; Qualifying quar | CAS-No. 67-63-0 e/mixture does not fall under this legislation. | |



| | III) on major accident hazards involving dangerous substances Annex I | substances; Flammable liquids, Categories 2 or 3 not covered by P5a and P5b, The information given is valid if the product is , stored below the boiling point and at a pressure of 1013 hPa. |
|---------|---|--|
| | | Qualifying quantity for the application of Upper-tier requirements: 50,000 tonnes; Part 1: Categories of dangerous substances; Flammable liquids, Categories 2 or 3 not covered by P5a and P5b, The information given is valid if the product is stored below the boiling point and at a pressure of 1013 hPa. |
| | Germany. List of Substances That Are I Water-Endangering, AwSV of 21 April 2017 UBA, Banz AT, as amended | |
| 15.2. (| Chemical safety asses | sment |
| ٢ | No data available | |
| | | |
| SECTI | ON 16: Other inform | nation |
| F | Full text of H-Stateme | its referred to under sections 2 and 3. |
| | | |
| | | Highly flammable liquid and vapour. Causes serious eye irritation. |
| | | May cause drowsiness or dizziness. |
| F | Full text of the Notes r | eferred to under section 3. |
| ļ | Abbreviations and Ac | onyms |
| | AU AIICL | Australia. Industrial Chemicals Act (AIIC) List |
| | BCF | bioconcentration factor |
| | BOD | biochemical oxygen demand |
| | CAS | Chemical Abstracts Service |
| | CLP | Classification, Labelling and Packaging |
| | CMR | carcinogenic, mutagenic or toxic to reproduction |
| | COD | chemical oxygen demand |
| | DNEL | derived no-effect level |
| | DSL | Canada. Environmental Protection Act, Domestic Substances List |
| | EINECS | European Inventory of Existing Commercial Chemical Substances |
| | ELINCS | European List of Notified Chemical Substances |
| -00000 | | 40/20 |
| 00000 | 026280 / Version 2.0 | 18/20 E |



| ENCS (JP) | Japan. Kashin-Hou Law List |
|---------------------------|---|
| GHS | Globally Harmonized System of Classification and Labelling of |
| | Chemicals |
| IECSC | China. Inventory of Existing Chemical Substances |
| INSQ | Mexico. National Inventory of Chemical Substances |
| ISHL (JP) | Japan. Inventory of Industrial Safety & Health |
| KECI (KR) | Korea. Existing Chemicals Inventory |
| LC50 | median lethal concentration |
| LOAEC | lowest observed adverse effect concentration |
| LOAEL | lowest observed adverse effect level |
| LOEL | lowest observed effect level |
| NDSL | Canada. Environmental Protection Act. Non-Domestic Substances List |
| NLP | no-longer polymer |
| NOAEC | no observed adverse effect concentration |
| NOAEL | no observed adverse effect level |
| NOEC | no observed effect concentration |
| NOEL | no observed effect level |
| NZIOC | New Zealand. Inventory of Chemicals |
| OECD | Organisation for Economic Cooperation and Development |
| OEL | occupational exposure limit |
| ONT INV | Canada. Ontario Inventory List |
| PBT | persistent, bioaccumulative and toxic |
| PHARM (JP) | Japan. Pharmacopoeia Listing |
| PICCS (PH) | Philippines. Inventory of Chemicals and Chemical Substances |
| PNEC | predicted no-effect concentration |
| REACH Auth. No.: | REACH Authorisation Number |
| REACH AuthAppC. No. | REACH Authorisation Application Consultation Number |
| UK REACH Auth. No.: | UK REACH Authorisation Number |
| UK REACH AuthAppC. No. | UK REACH Authorisation Application Consultation Number |
| UK REACH-Reg.No | UK REACH Registration Number |
| STOT | specific target organ toxicity |
| SVHC | substance of very high concern |
| TCSI | Taiwan. Existing Chemicals Inventory |
| TH INV | Thailand. Existing Chemicals Inventory from FDA |
| TSCA | US. Toxic Substances Control Act |
| UVCB | substance of unknown or variable composition, complex reaction products or biological materials |
| VN INVL | Vietnam. National Chemical Inventory |
| vPvB | very persistent and very bioaccumulative |
| | |

50000026280 / Version 2.0



Further information

| Key literature references and sources for data | : | Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet. |
|---|---|--|
| Methods used for product classification Hints for trainings | : | The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data. The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to. |
| Other information | : | The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. |

|| Indicates updated section.