

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date No data available

Revision Date 27-Jan-2021

Revision Number 1

EGHS / English



The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publicly available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved.

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name John Frieda Frizz Ease Moisture Barrier Intense Hold Hairspray (949008031)

Chemical name
Contains Butane, Isobutane

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

Recommended Use Hair Styling Product - Aerosol and Pump Spray.

Uses advised against No information available.

1.3. Details of the supplier of the safety data sheet

Supplier Name Kao Germany GmbH

Supplier Address Pfungstaedter Strasse 92-100
Darmstadt, D-64297
DE

For further information, please contact.

1.4. Emergency telephone number

Emergency telephone + 44 (0) 207 851 19800

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture



Regulation (EC) No 1272/2008

| | |
|--|----------------------|
| Germ cell mutagenicity | Category 1B - (H340) |
| Carcinogenicity | Category 1A - (H350) |
| Specific target organ toxicity (single exposure) | Category 3 - (H335) |
| Category 3 Narcotic effects | |
| Aerosols | Category 2 |

2.2. Label elements

Contains Butane, Isobutane



Signal word

Danger

Hazard Statements

H340 - May cause genetic defects

H350 - May cause cancer

May cause respiratory irritation. May cause drowsiness or dizziness

H223 - Flammable aerosol

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

P312 - Call a POISON CENTER or doctor if you feel unwell

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

P501 - Dispose of contents/ container to an approved waste disposal plant

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

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

P251 - Do not pierce or burn, even after use

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

2.3. Other hazards

Toxic to aquatic life

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

| Chemical name | EC No | CAS No | Weight-% | Classification according | REACH |
|---------------|-------|--------|----------|--------------------------|-------|
|---------------|-------|--------|----------|--------------------------|-------|

| | | | | to Regulation (EC) No. 1272/2008 [CLP] | registration number |
|-----------------------------|-----------|-----------|---------|--|---------------------|
| SD Alcohol 40 | 200-578-6 | 64-17-5 | 59.7373 | Flam. Liq. 2 (H225) | No data available |
| Butane | 203-448-7 | 106-97-8 | 21.35 | Muta. 1B (H340) Press. Gas Carc. 1A (H350) Flam. Gas 1 (H220) | No data available |
| Propane | 200-827-9 | 74-98-6 | 7.245 | Press. Gas Flam. Gas 1 (H220) | No data available |
| Isobutane | 200-857-2 | 75-28-5 | 6.405 | Muta. 1B (H340) Press. Gas Carc. 1A (H350) Flam. Gas 1 (H220) | No data available |
| 2-Amino-2-methyl-1-propanol | 204-709-8 | 124-68-5 | 0.6555 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412) | No data available |
| Benzoic acid | 200-618-2 | 65-85-0 | 0.02 | Skin Irrit. 2 (H315) STOT RE 1 (H372) Eye Dam. 1 (H318) | No data available |
| Propylene Glycol | 200-338-0 | 57-55-6 | 0.003 | STOT SE 1 (H370) STOT SE 3 (H336) STOT RE 1 (H372) | No data available |
| D-Limonene | 227-813-5 | 5989-27-5 | 0.0018 | Skin Irrit. 2 (H315) Flam. Liq. 3 (H226) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | No data available |
| Phenoxyethanol | 204-589-7 | 122-99-6 | 0.0001 | Acute Tox. 4 (H302) Eye Irrit. 2 (H319) | No data available |
| BHT | 204-881-4 | 128-37-0 | 0.0001 | Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | No data available |

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

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

| | |
|-----------------------|--|
| General advice | Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. |
| Inhalation | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. |
| Skin contact | Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician. |
| 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. |

Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

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

Symptoms

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

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

Note to physicians

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical, Carbon dioxide (CO₂), Water spray.

Large Fire

CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media

DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.

Hazardous Combustion Products

Carbon oxides.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.



Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges.

Other Information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapors or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled

containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

| Chemical name | European Union | United Kingdom | France | Spain | Germany |
|---|----------------|--|--|---|--|
| SD Alcohol 40 64-17-5 | - | STEL: 3000 ppm STEL: 5760 mg/m ³ TWA: 1000 ppm TWA: 1920 mg/m ³ | TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³ | STEL: 1000 ppm STEL: 1910 mg/m ³ | TWA: 200 ppm TWA: 380 mg/m ³ |
| Butane 106-97-8 | - | STEL: 750 ppm STEL: 1810 mg/m ³ TWA: 600 ppm TWA: 1450 mg/m ³ | TWA: 800 ppm TWA: 1900 mg/m ³ | TWA: 1000 ppm | TWA: 1000 ppm TWA: 2400 mg/m ³ |
| Propane 74-98-6 | - | - | - | TWA: 1000 ppm | TWA: 1000 ppm TWA: 1800 mg/m ³ |
| Isobutane 75-28-5 | - | - | - | TWA: 1000 ppm | TWA: 1000 ppm TWA: 2400 mg/m ³ |
| 2-Amino-2-methyl-1-propanol 124-68-5 | - | - | - | - | TWA: 1 ppm TWA: 3.7 mg/m ³ S* |
| Benzoic acid 65-85-0 | - | - | - | - | TWA: 0.1 ppm TWA: 0.5 mg/m ³ S* |
| Propylene Glycol 57-55-6 | - | STEL: 450 ppm STEL: 1422 mg/m ³ STEL: 30 mg/m ³ TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³ | - | - | - |
| D-Limonene 5989-27-5 | - | - | TWA: 1000 mg/m ³ STEL: 1500 mg/m ³ | via dérmica* TWA: 30 ppm TWA: 168 mg/m ³ | TWA: 5 ppm TWA: 28 mg/m ³ S* |
| Phenoxyethanol 122-99-6 | - | - | - | - | TWA: 1 ppm TWA: 5.7 mg/m ³ |
| BHT 128-37-0 | - | STEL: 30 mg/m ³ TWA: 10 mg/m ³ | TWA: 10 mg/m ³ | TWA: 10 mg/m ³ | TWA: 10 mg/m ³ |
| Chemical name | Italy | Portugal | Netherlands | Finland | Denmark |
| SD Alcohol 40 | - | TWA: 1000 ppm | H* | TWA: 1000 ppm | TWA: 1000 ppm |



| | | | | | |
|----------------------------|--|--|---|--|--|
| 64-17-5 | | | STEL: 1900 mg/m ³ TWA: 260 mg/m ³ | TWA: 1900 mg/m ³ STEL: 1300 ppm STEL: 2500 mg/m ³ | TWA: 1900 mg/m ³ |
| Butane 106-97-8 | - | TWA: 1000 ppm | - | TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³ | TWA: 500 ppm TWA: 1200 mg/m ³ |
| Propane 74-98-6 | - | TWA: 1000 ppm | - | TWA: 800 ppm TWA: 1500 mg/m ³ STEL: 1100 ppm STEL: 2000 mg/m ³ | TWA: 1000 ppm TWA: 1800 mg/m ³ |
| Isobutane 75-28-5 | - | TWA: 1000 ppm | - | TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³ | - |
| D-Limonene 5989-27-5 | - | - | - | TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³ | - |
| Phenoxyethanol 122-99-6 | - | - | - | TWA: 20 ppm TWA: 110 mg/m ³ STEL: 50 ppm STEL: 290 mg/m ³ iho* | - |
| BHT 128-37-0 | - | TWA: 2 mg/m ³ | - | TWA: 10 mg/m ³ STEL: 20 mg/m ³ | TWA: 10 mg/m ³ |
| Chemical name | Austria | Switzerland | Poland | Norway | Ireland |
| SD Alcohol 40 64-17-5 | STEL 2000 ppm STEL 3800 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³ | STEL: 1000 ppm STEL: 1920 mg/m ³ TWA: 500 ppm TWA: 960 mg/m ³ | TWA: 1900 mg/m ³ | TWA: 500 ppm TWA: 950 mg/m ³ STEL: 625 ppm STEL: 1187.5 mg/m ³ | STEL: 1000 ppm |
| Butane 106-97-8 | STEL 1600 ppm STEL 3800 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³ | STEL: 3200 ppm STEL: 7600 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³ | STEL: 3000 mg/m ³ TWA: 1900 mg/m ³ | TWA: 250 ppm TWA: 600 mg/m ³ STEL: 312.5 ppm STEL: 750 mg/m ³ | TWA: 1000 ppm STEL: 3000 ppm |
| Propane 74-98-6 | STEL 2000 ppm STEL 3600 mg/m ³ TWA: 1000 ppm TWA: 1800 mg/m ³ | STEL: 4000 ppm STEL: 7200 mg/m ³ TWA: 1000 ppm TWA: 1800 mg/m ³ | TWA: 1800 mg/m ³ | TWA: 500 ppm TWA: 900 mg/m ³ STEL: 625 ppm STEL: 1125 mg/m ³ | STEL: 3000 ppm |
| Isobutane 75-28-5 | STEL 1600 ppm STEL 3800 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³ | STEL: 3200 ppm STEL: 7600 mg/m ³ TWA: 800 ppm TWA: 1900 mg/m ³ | - | TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³ | - |
| 2-Amino-2-methyl-1-pr | - | H* | - | - | - |

| | | | | | |
|-----------------------------|---|---|----------------------------|---|--|
| opanol 124-68-5 | | STEL: 4.8 ppm STEL: 17.4 mg/m ³ TWA: 2.4 ppm TWA: 8.7 mg/m ³ | | | |
| Benzoic acid 65-85-0 | - | H* STEL: 0.8 ppm STEL: 4 mg/m ³ STEL: 20 mg/m ³ TWA: 0.2 ppm TWA: 1 mg/m ³ TWA: 10 mg/m ³ | - | - | - |
| Propylene Glycol 57-55-6 | - | - | TWA: 100 mg/m ³ | TWA: 25 ppm TWA: 79 mg/m ³ STEL: 37.5 ppm STEL: 118.5 mg/m ³ | TWA: 10 mg/m ³ TWA: 150 ppm TWA: 470 mg/m ³ STEL: 1410 mg/m ³ STEL: 30 mg/m ³ STEL: 450 ppm |
| D-Limonene 5989-27-5 | - | STEL: 14 ppm STEL: 80 mg/m ³ TWA: 7 ppm TWA: 40 mg/m ³ | - | TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³ | - |
| Phenoxyethanol 122-99-6 | STEL 20 ppm STEL 110 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³ Ceiling 20 ppm Ceiling 110 mg/m ³ | STEL: 20 ppm STEL: 110 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³ | TWA: 230 mg/m ³ | - | - |
| BHT 128-37-0 | TWA: 10 mg/m ³ | STEL: 40 mg/m ³ TWA: 10 mg/m ³ | - | - | TWA: 2 mg/m ³ STEL: 6 mg/m ³ |

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Hand Protection** Impervious gloves. Wear suitable gloves.
- Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
- Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls No information available.



General Hygiene Considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|-----------------------|------------------------------|
| Physical state | Compressed liquefied gas Gas |
| Appearance | Colorless |
| Odor | Pleasant |
| Color | No information available |
| Odor Threshold | No data available |

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|---|-------------------|----------------|---------------|
| pH | No data available | None known | |
| Melting / freezing point | No data available | None known | |
| Boiling point / boiling range | No data available | None known | |
| Flash Point | No data available | None known | |
| Evaporation Rate | No data available | None known | |
| Flammability (solid, gas) | No data available | None known | |
| Flammability Limit in Air | | None known | |
| Upper flammability limit | No data available | | |
| Lower flammability limit | No data available | | |
| Vapor pressure | No data available | None known | |
| Vapor density | No data available | None known | |
| Relative density | 1 | | |
| Water Solubility | Miscible | | |
| Solubility(ies) | No data available | None known | |
| Partition coefficient: n-octanol/water | No data available | | |
| Autoignition temperature | No data available | None known | |
| Decomposition temperature | No data available | None known | |
| Kinematic viscosity | No data available | None known | |
| Dynamic viscosity | No data available | None known | |
| Explosive properties | No data available | | |
| Oxidizing properties | No data available | | |

9.2. Other information

| | |
|-----------------------------------|--------------------------|
| Softening Point | No information available |
| Molecular Weight | No information available |
| VOC Content (%) | No information available |
| Liquid Density | No information available |
| Bulk Density | No information available |
| Particle Size | No information available |
| Particle Size Distribution | No information available |

Section 10: STABILITY AND REACTIVITY



10.1. Reactivity

Remarks No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

Heat, flames and sparks.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Yes.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon oxides.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.



Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 7,223.40 mg/kg
ATEmix 142.70 mg/L
(inhalation-dust/mist)

Unknown acute toxicity

98.6173 % of the mixture consists of ingredient(s) of unknown toxicity
38.88 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
98.6173 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
63.6173 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
91.3723 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
31.635 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------------|--|--------------------------|------------------------------------|
| SD Alcohol 40 | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat) 4 h |
| Butane | - | - | = 658 g/m ³ (Rat) 4 h |
| Propane | - | - | > 800000 ppm (Rat) 15 min |
| Isobutane | - | - | = 658 mg/L (Rat) 4 h |
| 2-Amino-2-methyl-1-propanol | = 2900 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | - |
| Benzoic acid | = 1700 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | > 12.2 mg/L (Rat) 4 h |
| Propylene Glycol | = 20 g/kg (Rat) | = 20800 mg/kg (Rabbit) | - |
| D-Limonene | = 5200 mg/kg (Rat) = 4400 mg/kg (Rat) | > 5 g/kg (Rabbit) | - |
| Phenoxyethanol | = 1850 mg/kg (Rat) | = 5 mL/kg (Rabbit) | > 0.057 mg/L (Rat) 8 h |
| BHT | > 2930 mg/kg (Rat) | > 2000 mg/kg (Rat) | - |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity Contains a known or suspected mutagen. Classification based on data available for ingredients. May cause genetic defects.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

| Chemical name | European Union |
|---------------|----------------|
| Butane | Muta. 1B |
| Isobutane | Muta. 1B |

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Chemical name | European Union |
|---------------|----------------|
| Butane | Carc. 1A |
| Isobutane | Carc. 1A |

Reproductive Toxicity No information available.

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Toxic to aquatic life. .

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|-----------------------------|--|--|---|--|
| SD Alcohol 40 | No data available | 96h LC50: 12.0 - 16.0 mL/L (Oncorhynchus mykiss) 96h LC50: 13400 - 15100 mg/L (Pimephales promelas) 96h LC50: > 100 mg/L (Pimephales promelas) | EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min | 48h LC50: 9268 - 14221 mg/L (Daphnia magna) 48h EC50: = 2 mg/L (Daphnia magna) |
| 2-Amino-2-methyl-1-propanol | 72h EC50: = 520 mg/L (Desmodesmus subspicatus) | 96h LC50: = 190 mg/L (Lepomis macrochirus) | No data available | 48h EC50: = 193 mg/L (Daphnia magna) |
| Benzoic acid | No data available | 96h LC50: = 44.6 mg/L (Lepomis macrochirus) | No data available | 48h EC50: = 860 mg/L (Daphnia magna) |
| Propylene Glycol | 96h EC50: = 19000 mg/L (Pseudokirchneriella subcapitata) | 96h LC50: 41 - 47 mL/L (Oncorhynchus mykiss) 96h LC50: = 51400 mg/L (Pimephales promelas) | - | 48h EC50: > 1000 mg/L (Daphnia magna) |

| | | | | |
|----------------|--|--|--|--------------------------------------|
| | | 96h LC50: = 51600 mg/L (Oncorhynchus mykiss) 96h LC50: = 710 mg/L (Pimephales promelas) | | |
| D-Limonene | No data available | 96h LC50: 0.619 - 0.796 mg/L (Pimephales promelas) 96h LC50: = 35 mg/L (Oncorhynchus mykiss) | No data available | No data available |
| Phenoxyethanol | 72h EC50: > 500 mg/L (Desmodesmus subspicatus) | 96h LC50: 337 - 352 mg/L (Pimephales promelas) 96h LC50: = 366 mg/L (Pimephales promelas) | No data available | 48h EC50: > 500 mg/L (Daphnia magna) |
| BHT | 72h EC50: = 6 mg/L (Pseudokirchneriella subcapitata) 72h EC50: > 0.42 mg/L (Desmodesmus subspicatus) | No data available | EC50 = 7.82 mg/L 5 min EC50 = 8.57 mg/L 15 min EC50 = 8.98 mg/L 30 min | No data available |

12.2. Persistence and degradability

Persistence and Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

| Chemical name | Partition coefficient |
|----------------|-----------------------|
| SD Alcohol 40 | -0.32 |
| Butane | 2.89 |
| Propane | 2.3 |
| Isobutane | 2.88 |
| Benzoic acid | 1.9 |
| Phenoxyethanol | 1.13 |
| BHT | 4.17 |

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

| Chemical name | PBT and vPvB assessment |
|---------------|---|
| SD Alcohol 40 | The substance is not PBT / vPvB PBT assessment does not apply |



| | |
|-----------------------------|---|
| Butane | The substance is not PBT / vPvB PBT assessment does not apply |
| Propane | The substance is not PBT / vPvB |
| Isobutane | The substance is not PBT / vPvB |
| 2-Amino-2-methyl-1-propanol | The substance is not PBT / vPvB |
| Benzoic acid | The substance is not PBT / vPvB |
| Propylene Glycol | The substance is not PBT / vPvB PBT assessment does not apply |
| D-Limonene | The substance is not PBT / vPvB PBT assessment does not apply |
| Phenoxyethanol | The substance is not PBT / vPvB |
| BHT | The substance is not PBT / vPvB |

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging No information available.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN-No. UN1950
 14.2 Proper Shipping Name AEROSOLS
 Description UN1950, AEROSOLS, 2.1, LTD QTY
 14.3 Hazard Class 2.1
 14.4 Packing Group Not applicable
 14.5 Marine Pollutant Not applicable
 14.6 Special Provisions None
 EmS-No. F-D, S-U
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

14.1 UN-No. UN1950
 14.2 Proper Shipping Name AEROSOLS
 Description UN1950, AEROSOLS, 2.1
 14.3 Hazard Class 2.1
 ADR/RID-Labels 2.1
 14.4 Packing Group Not applicable



14.5 Environmental hazard Not applicable
14.6 Special Provisions None
Classification code 5F

ADR

14.1 UN-No. UN1950
14.2 Proper Shipping Name AEROSOLS
Description UN1950, AEROSOLS, 2.1, (D)
14.3 Hazard Class 2.1
14.4 Packing Group Not applicable
14.5 Environmental hazard Not applicable
14.6 Special Provisions None 190, 327, 344, 625
Classification code 5F
Tunnel restriction code (D)

IATA

14.1 UN-No. UN1950
14.2 Proper Shipping Name AEROSOLS, FLAMMABLE
Description UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD QTY
14.3 Hazard Class 2.1
14.4 Packing Group Not applicable
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

ERG Code 10L

Section 15: REGULATORY INFORMATION

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

National regulations

France

Occupational Illnesses (R-463-3, France)

| Chemical name | French RG number | Title |
|-----------------------------|--|-------|
| SD Alcohol 40 64-17-5 | RG 84 | - |
| Butane 106-97-8 | RG 84 | - |
| Propane 74-98-6 | RG 84 | - |
| Isobutane 75-28-5 | RG 84 | - |
| Benzoic acid 65-85-0 | RG 5, RG 14, RG 15, RG 15bis, RG 20bis | - |
| Propylene Glycol 57-55-6 | RG 84 | - |
| D-Limonene 5989-27-5 | RG 84 | - |
| Phenoxyethanol 122-99-6 | RG 84 | - |

Germany

Water hazard class (WGK) Highly hazardous to water (WGK 3)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|---------------------|--|--|
| Butane - 106-97-8 | Use restricted. See item 28. Use restricted. See item 29. | |
| Isobutane - 75-28-5 | Use restricted. See item 28. Use restricted. See item 29. | |

Persistent Organic Pollutants

Not applicable.

Dangerous substance category per Seveso Directive (2012/18/EU)

P3a - FLAMMABLE AEROSOLS

P3b - FLAMMABLE AEROSOLS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

International Inventories

| | |
|----------------------|---|
| TSCA | Contact supplier for inventory compliance status. |
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AICS | Contact supplier for inventory compliance status. |

Legend

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment



No information available.

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

- H220 - Extremely flammable gas
- H225 - Highly flammable liquid and vapor
- H226 - Flammable liquid and vapor
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction
- H318 - Causes serious eye damage
- H319 - Causes serious eye irritation
- H336 - May cause drowsiness or dizziness
- H340 - May cause genetic defects
- H350 - May cause cancer
- H370 - Causes damage to organs
- H372 - Causes damage to organs through prolonged or repeated exposure
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

Section 8: Exposure controls and personal protection

| | | | |
|---------|-----------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | - | Skin designation |

Classification procedure

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act



Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
U.S. Environmental Protection Agency High Production Volume Chemicals
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Revision Date 27-Jan-2021

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet