

ALCS-420

Version number: 1.0

Date of compilation: 2025-09-10

1 Identification

1.1 Product identifier

Trade name **ALCS-420**
Alternative name(s) Colorshine-T

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

Relevant identified uses cleaning agent

1.3 Details of the supplier of the safety data sheet

Transchem Inc.
1225 Franklin Blvd.
Cambridge Ontario N1R 7E5
Canada

Telephone: +1.800.265.9100
e-mail: info@transchem.com
Website: https://transchem.com/

e-mail (competent person) kberzitis@transchem.com (Karl Berzitis)

1.4 Emergency telephone number

Emergency information service INFOTRAC 1-800-535-5053, 24 Hours

2 Hazard identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class | Category | Hazard class and category | Hazard statement |
|---------|-----------------------------------|----------|---------------------------|------------------|
| 3.2 | skin corrosion/irritation | 2 | Skin Irrit. 2 | H315 |
| 3.3 | serious eye damage/eye irritation | 1 | Eye Dam. 1 | H318 |

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labeling

- Signal word danger

- Pictograms

GHS05



- Hazard statements

H315 Causes skin irritation.
H318 Causes serious eye damage.

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- Precautionary statements

| | |
|----------------|--|
| P264 | Wash hands and face thoroughly after handling. |
| P280 | Wear eye protection or face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

3 Composition/ Information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

| Name of substance | Other names or synonyms | Identifier | Wt% | Classification acc. to GHS |
|---|---|----------------------|-----------|---|
| Dodecylbenzenesulphonic acid | Dodecylbenzenesulfonic acid | CAS No 27176-87-0 | 5 – < 10 | Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 |
| Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts | | CAS No 68585-34-2 | 1 – < 5 | Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 |
| sodium hydroxide | caustic soda | CAS No 1310-73-2 | 1 – < 5 | Acute Tox. 4 / H302 Skin Corr. 1A / H314 Eye Dam. 1 / H318 |
| trisodium nitrilotriacetate | trisodium 2-[bis(carboxymethyl)amino]acetate NTA | CAS No 5064-31-3 | 1 – < 5 | Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Carc. 2 / H351 |
| 2-butoxyethanol | ethyleneglycol monobutyl ether butyl cellosolve | CAS No 111-76-2 | 0.1 – < 1 | Flam. Liq. 4 / H227 Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 |
| Sulphuric acid | sulfuric acid | CAS No 7664-93-9 | 0.1 – < 1 | Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 2,2',2''-(1,3,5-triazinane-1,3,5-triyl)triethanol | CAS No 4719-04-4 | < 0.1 | Acute Tox. 4 / H302 Acute Tox. 2 / H330 Eye Irrit. 2 / H319 Skin Sens. 1 / H317 STOT RE 1 / H372 |

Remarks

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret. For full text of abbreviations: see SECTION 16.

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4 First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Impairment of vision. Production of tissue damage in the eye. Conjunctivitis (pink eye). Localized redness, edema, pruritis and/or pain.

4.3 Indication of any immediate medical attention and special treatment needed

Rinse immediately carefully and thoroughly with eye shower or water. Treat symptomatically.

5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Chemical protective clothing, Eye and face protection, Wear self-contained breathing apparatus

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Prevent skin contact. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

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6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Set up barriers, Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

7 Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Never add water to this product.

- Handling of incompatible substances or mixtures

Do not mix with acids.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

- Incompatible substances or mixtures

Acids, Oxidizers

- General rule

Keep out of reach of children. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep away from incompatible materials.

7.3 Specific end use(s)

See section 16 for a general overview.

8 Exposure controls/ Personal protection

8.1 Control parameters

| Occupational exposure limit values (Workplace Exposure Limits) | | | | | | | | | | | |
|--|------------------------|----------|--------------|-----------|-------------|------------|--------------|-----------------|-------------------|----------|-----------------|
| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m³] | STEL [ppm] | STEL [mg/m³] | Ceiling-C [ppm] | Ceiling-C [mg/m³] | Notation | Source |
| CA | 2-butoxyethanol | 111-76-2 | PEV/VE A | 20 | | | | | | | Regulation OHS |
| CA | 2-butoxyethanol (EGBE) | 111-76-2 | OEL (BC) | 20 | | | | | | | "BC Regulation" |
| CA | 2-butoxyethanol (EGBE) | 111-76-2 | OEL (ON-MoL) | 20 | | | | | | | MoL |

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| Occupational exposure limit values (Workplace Exposure Limits) | | | | | | | | | | | |
|--|---|-----------|--------------|-----------|-------------|------------|--------------|-----------------|-------------------|----------|-----------------|
| Country | Name of agent | CAS No | Identifier | TWA [ppm] | TWA [mg/m³] | STEL [ppm] | STEL [mg/m³] | Ceiling-C [ppm] | Ceiling-C [mg/m³] | Notation | Source |
| CA | 2-butoxyethanol (ethylene glycol monobutyl ether) | 111-76-2 | OEL (AB) | 20 | 97 | | | | | | OHS Code |
| CA | sodium hydroxide | 1310-73-2 | OEL (AB) | | | | | | 2 | | OHS Code |
| CA | sodium hydroxide | 1310-73-2 | OEL (BC) | | | | | | 2 | | "BC Regulation" |
| CA | sodium hydroxide | 1310-73-2 | OEL (ON-MoL) | | | | | 2 | | | MoL |
| CA | sodium hydroxide | 1310-73-2 | PEV/VE A | | | | | | 2 | | Regulation OHS |
| CA | sulfuric acid | 7664-93-9 | OEL (AB) | | 1 | | 3 | | | | OHS Code |
| CA | sulfuric acid | 7664-93-9 | OEL (ON-MoL) | | 0.2 | | | | | t | MoL |
| CA | sulfuric acid | 7664-93-9 | PEV/VE A | | 0.2 | | 3 | | | t | Regulation OHS |
| CA | sulfuric acid | 7664-93-9 | OEL (BC) | | 0.2 | | | | | t, mist | "BC Regulation" |

Notation

| | |
|-----------|---|
| Ceiling-C | ceiling value is a limit value above which exposure should not occur |
| mist | as mists |
| STEL | short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified) |
| t | thoracic fraction |
| TWA | time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified) |

| Relevant DNELs of components | | | | | | |
|------------------------------|------------|----------|-------------------|------------------------------------|-------------------|----------------------------|
| Name of substance | CAS No | Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 52 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 52 mg/m³ | human, inhalatory | worker (industry) | acute - systemic effects |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 52 mg/m³ | human, inhalatory | worker (industry) | chronic - local effects |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 52 mg/m³ | human, inhalatory | worker (industry) | acute - local effects |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 57.2 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |
| Dodecylbenzenesulphonic acid | 27176-87-0 | DNEL | 80 mg/kg bw/day | human, dermal | worker (industry) | acute - systemic effects |
| trisodium nitrilotriacetate | 5064-31-3 | DNEL | 3.5 mg/m³ | human, inhalatory | worker (industry) | chronic - systemic effects |

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| Relevant DNELs of components | | | | | | |
|---|-----------|----------|-------------------------|------------------------------------|-------------------|----------------------------|
| Name of substance | CAS No | Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
| trisodium nitrilotriacetate | 5064-31-3 | DNEL | 5.25 mg/m ³ | human, inhalatory | worker (industry) | acute - systemic effects |
| 2-butoxyethanol | 111-76-2 | DNEL | 98 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| 2-butoxyethanol | 111-76-2 | DNEL | 1,091 mg/m ³ | human, inhalatory | worker (industry) | acute - systemic effects |
| 2-butoxyethanol | 111-76-2 | DNEL | 246 mg/m ³ | human, inhalatory | worker (industry) | acute - local effects |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | DNEL | 0.2 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |

| Relevant PNECs of components | | | | | | |
|---|------------|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance | CAS No | Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 0.892 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 1 mg/l | aquatic organisms | marine water | short-term (single instance) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 50 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 27.5 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 2.75 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | PNEC | 25 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| trisodium nitrilotriacetate | 5064-31-3 | PNEC | 540 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| trisodium nitrilotriacetate | 5064-31-3 | PNEC | 0.93 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| trisodium nitrilotriacetate | 5064-31-3 | PNEC | 0.093 mg/l | aquatic organisms | marine water | short-term (single instance) |
| trisodium nitrilotriacetate | 5064-31-3 | PNEC | 0.8 mg/l | aquatic organisms | water | intermittent release |
| 2-butoxyethanol | 111-76-2 | PNEC | 8.8 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| 2-butoxyethanol | 111-76-2 | PNEC | 0.88 mg/l | aquatic organisms | marine water | short-term (single instance) |
| 2-butoxyethanol | 111-76-2 | PNEC | 463 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| 2-butoxyethanol | 111-76-2 | PNEC | 34.6 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| 2-butoxyethanol | 111-76-2 | PNEC | 3.46 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| 2-butoxyethanol | 111-76-2 | PNEC | 2.33 mg/kg | terrestrial organisms | soil | short-term (single instance) |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 0.007 mg/l | aquatic organisms | freshwater | short-term (single instance) |

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| Relevant PNECs of components | | | | | | |
|---|-----------|----------|-----------------|-----------------------|------------------------------|------------------------------|
| Name of substance | CAS No | Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
| triyl)triethanol | | | | | | |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 0.001 mg/l | aquatic organisms | marine water | short-term (single instance) |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 5.5 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 0.03 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 0.003 mg/kg | aquatic organisms | marine sediment | short-term (single instance) |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | PNEC | 0.002 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. Use protective eyewear to guard against splash of liquids.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Body protection

Protective clothing against liquid chemicals.

Respiratory protection

Full face mask/half mask/quarter mask (EN 136/140). Type : B (against inorganic gases and vapors, color code: Grey).

Environmental exposure controls

Avoid release to the environment. Keep away from drains, surface and ground water.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|----------------|---------------------------|
| Physical state | liquid |
| Color | transparent - light green |
| Odor | characteristic |
| Odor threshold | no data available |

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| | |
|--|------------------------|
| Melting point/freezing point | not determined |
| Boiling point or initial boiling point and boiling range | not determined |
| Evaporation rate | not determined |
| Flammability | non-combustible |
| Lower and upper explosion limit | not determined |
| Flash point | not determined |
| Auto-ignition temperature | not determined |
| Decomposition temperature | not relevant |
| pH (value) | 12 – 13 (23 °C) (base) |
| Kinematic viscosity | not determined |
| Solubility(ies) | not determined |

Partition coefficient

| | |
|---|-----------------------------------|
| Partition coefficient n-octanol/water (log value) | this information is not available |
|---|-----------------------------------|

| | |
|----------------|----------------|
| Vapor pressure | not determined |
|----------------|----------------|

Density and/or relative density

| | |
|-------------------------|---|
| Density | not determined |
| Relative vapour density | information on this property is not available |
| Relative density | 1.03 at 23 °C (water = 1) |

| | |
|--------------------------|-----------------------|
| Particle characteristics | not relevant (liquid) |
|--------------------------|-----------------------|

9.2 Other information

| | |
|--|---|
| Information with regard to physical hazard classes | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics | there is no additional information |

10 Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions. Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. See below "Conditions to avoid".

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10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Acids, Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

11 Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components | | | |
|---|------------|-----------------------|---------------|
| Name of substance | CAS No | Exposure route | ATE |
| Dodecylbenzenesulphonic acid | 27176-87-0 | oral | 650 mg/kg |
| sodium hydroxide | 1310-73-2 | oral | 325 mg/kg |
| trisodium nitrilotriacetate | 5064-31-3 | oral | 1,740 mg/kg |
| 2-butoxyethanol | 111-76-2 | oral | 530 mg/kg |
| 2-butoxyethanol | 111-76-2 | dermal | 667 mg/kg |
| 2-butoxyethanol | 111-76-2 | inhalation: vapour | ≥3.9 mg/l/4h |
| Sulphuric acid | 7664-93-9 | inhalation: vapour | 3 mg/l/4h |
| Sulphuric acid | 7664-93-9 | inhalation: dust/mist | 0.85 mg/l/4h |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | oral | 1,000 mg/kg |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | inhalation: vapour | >0.5 mg/l/4h |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | inhalation: dust/mist | 0.371 mg/l/4h |

| Acute toxicity of components | | | | | |
|---|------------|----------------|----------|--------------|---------|
| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
| Dodecylbenzenesulphonic acid | 27176-87-0 | oral | LD50 | 650 mg/kg | rat |
| Dodecylbenzenesulphonic acid | 27176-87-0 | dermal | LD50 | >2,000 mg/kg | rat |
| Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts | 68585-34-2 | oral | LD50 | >2,000 mg/kg | rat |
| sodium hydroxide | 1310-73-2 | oral | LD50 | 325 mg/kg | rabbit |
| trisodium nitrilotriacetate | 5064-31-3 | oral | LD50 | 1,740 mg/kg | rat |

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| Acute toxicity of components | | | | | |
|---|-----------|-----------------------|----------|-------------------|---------|
| Name of substance | CAS No | Exposure route | Endpoint | Value | Species |
| 2-butoxyethanol | 111-76-2 | oral | LD50 | 530 mg/kg | rat |
| 2-butoxyethanol | 111-76-2 | inhalation: vapour | LC50 | ≥3.9 mg/l/4h | rat |
| 2-butoxyethanol | 111-76-2 | inhalation: vapour | LC50 | 2.175 mg/l/4h | rat |
| 2-butoxyethanol | 111-76-2 | dermal | LD50 | 667 – 1,060 mg/kg | rabbit |
| 2-butoxyethanol | 111-76-2 | dermal | LD50 | 400 – 500 mg/kg | rabbit |
| Sulphuric acid | 7664-93-9 | inhalation: dust/mist | LC50 | 0.85 mg/l/4h | mouse |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | oral | LD50 | 1,000 mg/kg | rat |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | inhalation: dust/mist | LC50 | 0.371 mg/l/4h | rat |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | dermal | LD50 | >4,000 mg/kg | rat |

Skin corrosion/irritation

Causes skin irritation. In vitro skin corrosion: human skin model test. Shall not be classified as corrosive to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

- IARC Monographs (WHO)

| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans | | | |
|---|-----------|----------------|--------|
| Name of substance | CAS No | Classification | Number |
| 2-butoxyethanol | 111-76-2 | 3 | |
| trisodium nitrilotriacetate | | 2B | |
| Sulphuric acid | 7664-93-9 | 1 | |

Legend

- 1 Carcinogenic to humans
- 2B Possibly carcinogenic to humans
- 3 Not classifiable as to carcinogenicity in humans

- National Toxicology Program (United States)

| National Toxicology Program (United States): Report on Carcinogens | | | |
|--|-----------|--------------------------------|---------------------------|
| Name of substance | CAS No | Classification | Number |
| Sulphuric acid | 7664-93-9 | Known to be a human carcinogen | 9th Report on Carcinogens |

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Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Information on likely routes of exposure

If on skin, If inhaled, If in eyes

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed:

Diarrhoea, Vomiting, Abdominal pain

If in eyes:

Causes tears, Production of tissue damage in the eye, Conjunctivitis (pink eye), Risk of blindness

If inhaled:

Localized redness, edema, pruritis and/or pain, Cough, Headache

If on skin:

Localized redness, edema, pruritis and/or pain

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

Irritation and significant inflammation of the skin (dermatitis) due to the defatting properties of the product may be caused by repeated or prolonged exposure.

12 Ecological information

12.1 Toxicity

Harmful to aquatic life.

| Aquatic toxicity (acute) of components | | | | | |
|--|------------|----------|------------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Dodecylbenzenesulphonic acid | 27176-87-0 | LC50 | 3.2 mg/l | fish | 96 h |
| Dodecylbenzenesulphonic acid | 27176-87-0 | EC50 | 12 mg/l | aquatic invertebrates | 24 h |
| Dodecylbenzenesulphonic acid | 27176-87-0 | ErC50 | 29 mg/l | algae | 96 h |
| sodium hydroxide | 1310-73-2 | LC50 | <180 mg/l | fish | 96 h |
| sodium hydroxide | 1310-73-2 | EC50 | 40.4 mg/l | aquatic invertebrates | 48 h |
| trisodium nitrilotriacetate | 5064-31-3 | LC50 | 114 mg/l | fish | 96 h |
| trisodium nitrilotriacetate | 5064-31-3 | EC50 | 98 mg/l | aquatic invertebrates | 96 h |
| trisodium nitrilotriacetate | 5064-31-3 | ErC50 | >91.5 mg/l | algae | 72 h |
| 2-butoxyethanol | 111-76-2 | LC50 | 1,474 mg/l | fish | 96 h |
| 2-butoxyethanol | 111-76-2 | EC50 | 1,550 mg/l | aquatic invertebrates | 48 h |
| 2-butoxyethanol | 111-76-2 | ErC50 | 1,840 mg/l | algae | 72 h |
| Sulphuric acid | 7664-93-9 | LC50 | <28 mg/l | fish | 96 h |

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| Aquatic toxicity (acute) of components | | | | | |
|---|-----------|----------|------------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Sulphuric acid | 7664-93-9 | EC50 | >100 mg/l | aquatic invertebrates | 48 h |
| Sulphuric acid | 7664-93-9 | ErC50 | >100 mg/l | algae | 72 h |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | LC50 | 16.07 mg/l | fish | 96 h |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | EC50 | 11.9 mg/l | aquatic invertebrates | 48 h |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | ErC50 | 6.66 mg/l | algae | 72 h |

| Aquatic toxicity (chronic) of components | | | | | |
|---|------------|----------|----------|-----------------------|---------------|
| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
| Dodecylbenzenesulphonic acid | 27176-87-0 | EC50 | 723 mg/l | microorganisms | 3 h |
| sodium hydroxide | 1310-73-2 | EC50 | 22 mg/l | microorganisms | 15 min |
| 2-butoxyethanol | 111-76-2 | EC50 | 297 mg/l | aquatic invertebrates | 21 d |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | EC50 | 550 mg/l | microorganisms | 30 min |

12.2 Persistence and degradability

Biodegradation

The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

| Degradability of components | | | | | | |
|---|-----------|---------------------------|------------------|------|--------|--------|
| Name of substance | CAS No | Process | Degradation rate | Time | Method | Source |
| trisodium nitrilotriacetate | 5064-31-3 | DOC removal | >95 % | 28 d | | ECHA |
| 2-butoxyethanol | 111-76-2 | carbon dioxide generation | 18.3 % | 3 d | | ECHA |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | DOC removal | ≥90 – ≤100 % | 8 d | | ECHA |

12.3 Bioaccumulative potential

Data are not available.

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| Bioaccumulative potential of components | | | | |
|---|------------|-----|----------------------------|----------|
| Name of substance | CAS No | BCF | Log KOW | BOD5/COD |
| Dodecylbenzenesulphonic acid | 27176-87-0 | 96 | 4.78 (pH value: 7, 25 °C) | |
| 2-butoxyethanol | 111-76-2 | | 0.81 (pH value: 7, 25 °C) | |
| 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol | 4719-04-4 | | <-2.3 (pH value: 5, 24 °C) | |

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

12.7 Other adverse effects

Data are not available.

13 Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

14 Transport information

- | | |
|--|---|
| 14.1 UN number | not subject to transport regulations |
| 14.2 UN proper shipping name | not relevant |
| 14.3 Transport hazard class(es) | none |
| 14.4 Packing group | not assigned |
| 14.5 Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user | There is no additional information. |
| 14.7 Transport in bulk according to IMO instruments | The cargo is not intended to be carried in bulk. |

Information for each of the UN Model Regulations

Transport information - National regulations - Additional information (UN RTDG)

Not subject to transport regulations: UN RTDG

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

15 Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)

all ingredients are listed (ACTIVE) or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities

| Name of substance | CAS No | Notes | Reportable quantity (pounds) | Threshold planning quantity (pounds) |
|-------------------|-----------|-------|------------------------------|--------------------------------------|
| Sulphuric acid | 7664-93-9 | | 1,000 | 1000 |

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

| Name of substance | CAS No | Remarks | Effective date |
|-------------------|-----------|--|----------------|
| Sulphuric acid | 7664-93-9 | acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size | 1986-12-31 |

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

| Name of substance | CAS No | Remarks | Statutory code | Final RQ pounds (Kg) |
|------------------------------|------------|---------|----------------|----------------------|
| sodium hydroxide | 1310-73-2 | | 1 | 1000 (454) |
| Sulphuric acid | 7664-93-9 | | 1 | 1000 (454) |
| Dodecylbenzenesulphonic acid | 27176-87-0 | | 1 | 1000 (454) |

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

| Name of substance | CAS No | Functionality | Authoritative Lists |
|-----------------------------|-----------|---------------|---|
| sodium hydroxide | 1310-73-2 | | OEHHA RELs |
| trisodium nitrilotriacetate | | | IARC Carcinogens - 2B |
| 2-butoxyethanol | 111-76-2 | | ATSDR Neurotoxics OEHHA RELs |
| Sulphuric acid | 7664-93-9 | | IARC Carcinogens - 1 NTP 13th RoC - known OEHHA RELs Prop 65 |

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- Toxic or Hazardous Substance List (MA-TURA)

| Name of substance | CAS No | DEP CODE | PBT / HHS / LHS | PBT / HHS Threshold | De Minimis Concentration Threshold |
|------------------------------|------------|----------|-----------------|---------------------|------------------------------------|
| 2-butoxyethanol | | 1022 | | | 1.0 % |
| sodium hydroxide | 1310-73-2 | | | | 1.0 % |
| Sulphuric acid | 7664-93-9 | | | | 1.0 % |
| Dodecylbenzenesulphonic acid | 27176-87-0 | | | | 1.0 % |

- Hazardous Substances List (MN-ERTK)

| Name of substance | CAS No | References | Remarks |
|-------------------|-----------|------------|---------|
| sodium hydroxide | 1310-73-2 | A, N, O | |

Legend

- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

| Name of substance | CAS No | Remarks | Classifications |
|------------------------------|------------|---------|-----------------|
| 2-butoxyethanol | 111-76-2 | | CA F2 |
| sodium hydroxide | 1310-73-2 | | CO R1 |
| Sulphuric acid | 7664-93-9 | | CA CO R2 |
| Dodecylbenzenesulphonic acid | 27176-87-0 | | CO |

Legend

- CA Carcinogenic
- CO Corrosive
- F2 Flammable - Second Degree
- R1 Reactive - First Degree
- R2 Reactive - Second Degree

- Hazardous Substance List (Chapter 323) (PA-RTK)

| Name acc. to inventory | CAS No | Classification |
|--------------------------------|------------|----------------|
| SODIUM HYDROXIDE (NA(OH)) | 1310-73-2 | E |
| SULFURIC ACID | 7664-93-9 | E |
| BENZENESULFONIC ACID, DODECYL- | 27176-87-0 | E |

Legend

- E Environmental hazard

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- Hazardous Substance List (RI-RTK)

| Name of substance | CAS No | References |
|-------------------|-----------|------------|
| 2-butoxyethanol | 111-76-2 | T |
| 2-butoxyethanol | 111-76-2 | T |
| sodium hydroxide | 1310-73-2 | T, F |
| sodium hydroxide | 1310-73-2 | T, F |
| sodium hydroxide | 1310-73-2 | T, F |
| Sulphuric acid | 7664-93-9 | T, F |

Legend

F Flammability (NFPA®)
T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

| Proposition 65 List of chemicals | | | |
|--|-----------|-------------|----------------------|
| Name acc. to inventory | CAS No | Conc. | Type of the toxicity |
| Strong inorganic acid mists containing sulfuric acid | | 0.1284 wt% | cancer |
| sulfur dioxide | 7446-09-5 | 0.00855 wt% | developmental |

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

| Category | Rating | Description |
|---------------------|--------|--|
| Chronic | * | chronic (long-term) health effects may result from repeated overexposure |
| Health | 3 | major injury likely unless prompt action is taken and medical treatment is given |
| Flammability | 0 | material that will not burn under typical fire conditions |
| Physical hazard | 0 | material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive |
| Personal protection | - | |

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

| Category | Degree of hazard | Description |
|----------------|------------------|--|
| Flammability | 0 | material that will not burn under typical fire conditions |
| Health | 3 | material that, under emergency conditions, can cause serious or permanent injury |
| Instability | 0 | material that is normally stable, even under fire conditions |
| Special hazard | | |

National regulations (Canada)

Domestic Substances List (DSL)

All ingredients are listed.

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National inventories

| Country | Inventory | Status |
|---------|------------|-------------------------------------|
| CA | DSL | all ingredients are listed |
| EU | REACH Reg. | not all ingredients are listed |
| US | TSCA | all ingredients are listed (ACTIVE) |

Legend

DSL Domestic Substances List (DSL)
REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

16 Other information

Indication of changes (revised safety data sheet)

Date of compilation. 2025-09-10.

Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-----------------|--|
| "BC Regulation" | OHS Regulation: Section 5.48 (British Columbia) |
| ACGIH® | American Conference of Governmental Industrial Hygienists |
| Acute Tox. | Acute toxicity |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BOD | Biochemical Oxygen Demand |
| Carc. | Carcinogenicity |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| Ceiling-C | Ceiling value |
| COD | Chemical oxygen demand |
| DEP CODE | Department of Environmental Protection Code |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DNEL | Derived No-Effect Level |
| EC50 | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| ED | Endocrine disruptor |
| ErC50 | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control |
| Eye Dam. | Seriously damaging to the eye |
| Eye Irrit. | Irritant to the eye |
| Flam. Liq. | Flammable liquid |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| HHS | Higher hazard substance |
| IARC | International Agency for Research on Cancer |

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| Abbr. | Descriptions of used abbreviations |
|-----------------|---|
| IARC Monographs | IARC Monographs on the Evaluation of Carcinogenic Risks to Humans |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| LC50 | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| LHS | Lower hazard substance |
| log KOW | n-Octanol/water |
| MoL | Ministry of Labor: Current Occupational Exposure Limits for Ontario Workplaces Required under Regulation 833 |
| NFPA® | National Fire Protection Association (United States) |
| NPCA-HMIS® III | National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition |
| OHS Code | Occupational Health and Safety Code: Occupational exposure limits for chemical substances (Alberta) |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| ppm | Parts per million |
| Regulation OHS | Regulation respecting occupational health and safety: Permissible exposure values for airborne contaminants (Quebec) |
| RTECS | Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information) |
| Skin Corr. | Corrosive to skin |
| Skin Irrit. | Irritant to skin |
| Skin Sens. | Skin sensitization |
| STEL | Short-term exposure limit |
| STOT RE | Specific target organ toxicity - repeated exposure |
| TWA | Time-weighted average |
| UN RTDG | UN Recommendations on the Transport of Dangerous Good |
| vPvB | Very Persistent and very Bioaccumulative |

Key literature references and sources for data

Hazardous Products Regulations (HPR)
SOR/2022-272: Regulations Amending the Hazardous Products Regulations (GHS, Seventh Revised Edition)
UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text |
|------|---|
| H227 | Combustible liquid. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H331 | Toxic if inhaled. |
| H351 | Suspected of causing cancer. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.