

VA-011 Ready Mix -20°C

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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1.2. Relevant identified uses of the substance or mixture and uses advised against**1.3. Details of the supplier of the safety data sheet**

| | | |
|-------------------------|--|------------------------------------|
| Company name: | Vierol AG | |
| Street: | Karlstrasse 19 | |
| Place: | D-26123 Oldenburg | |
| Telephone: | +49 (0) 441 – 210 20 – 0 | Telefax: +49 (0) 441 – 210 20 –111 |
| e-mail: | info@vierol.de | |
| Internet: | www.vierol.de | |
| Responsible Department: | Giftinformationszentrum Nord (Göttingen) | |
| | +49 (0)551/19240 | |

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 4

Specific target organ toxicity - repeated exposure: STOT RE 2

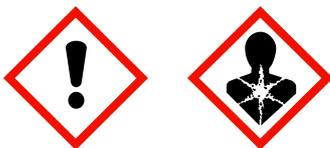
Hazard Statements:

Harmful if swallowed.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

ethanediol, ethylene glycol

Signal word: Warning**Pictograms:****Hazard statements**

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Precautionary statements

| | |
|-----------|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| P330 | Rinse mouth. |
| P314 | Get medical advice/attention if you feel unwell. |
| P501 | Dispose of contents/container to Dispose of waste according to applicable legislation.. |

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures**Hazardous components**

| CAS No | Chemical name | | | Quantity |
|------------|---|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 7732-18-5 | water | | | 40-60 % |
| | 213-791-2 | | | |
| 107-21-1 | ethanediol, ethylene glycol | | | 30 - < 35 % |
| | 203-473-3 | 603-027-00-1 | 01-2119456816-28 | |
| | Acute Tox. 4, STOT RE 2; H302 H373 | | | |
| 1303-96-4 | disodium tetraborate decahydrate; borax decahydrate | | | 1 - < 5 % |
| | 215-540-4 | 005-011-01-1 | | |
| | Repr. 1B; H360FD | | | |
| 1310-73-2 | sodium hydroxide; caustic soda | | | < 1 % |
| | 215-185-5 | 011-002-00-6 | | |
| | Skin Corr. 1A; H314 | | | |
| 64665-57-2 | Sodium 4(or 5)-methyl-1H-benzotriazolide | | | < 1 % |
| | 265-004-9 | | | |
| | Acute Tox. 4, Skin Corr. 1, Aquatic Chronic 2; H302 H314 H411 | | | |

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

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Keep people at a distance and stay on the windward side. Remove casualty to fresh air and keep warm and at rest.

After inhalation

Provide fresh air. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary. Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. alcohol resistant foam. Carbon dioxide (CO₂).
Extinguishing powder Water mist

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

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

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.
Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Store at temperatures not exceeding 40 °C/ °F.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-----------------------------------|-----|-------------------|-----------|---------------|--------|
| 1303-96-4 | Disodium tetraborate, decahydrate | - | 5 | | TWA (8 h) | WEL |
| 107-21-1 | Ethane-1,2-diol, vapour | 20 | 52 | | TWA (8 h) | WEL |
| | | 40 | 104 | | STEL (15 min) | WEL |
| 1310-73-2 | Sodium hydroxide | - | 2 | | STEL (15 min) | WEL |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|-----------------------------|----------------|----------|----------------------|
| 107-21-1 | ethanediol, ethylene glycol | | | |
| Worker DNEL, long-term | | inhalation | local | 35 mg/m ³ |
| Worker DNEL, long-term | | dermal | systemic | 106 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | local | 7 mg/m ³ |
| Consumer DNEL, long-term | | dermal | systemic | 53 mg/kg bw/day |

PNEC values

| CAS No | Substance | Value |
|------------|--|--------------|
| 107-21-1 | ethanediol, ethylene glycol | |
| | Environmental compartment | |
| | Freshwater | 10 mg/l |
| | Marine water | 1 mg/l |
| | Freshwater sediment | 37 mg/kg |
| | Marine sediment | 3,7 mg/kg |
| | Soil | 1,53 mg/kg |
| 64665-57-2 | Sodium 4(or 5)-methyl-1H-benzotriazolide | |
| | Marine water | 0,008 mg/l |
| | Marine sediment | 0,025 mg/kg |
| | Soil | 0,0024 mg/kg |

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Wear eye protection/face protection.

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Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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. DIN EN 374

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. A2, A2/P2, ABEK

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

| | | |
|-----------------|-----------|----------------|
| Physical state: | Liquid | |
| Colour: | yellow | |
| Odour: | odourless | |
| pH-Value: | | not determined |

Changes in the physical state

| | | |
|--|--|--------|
| Melting point: | | -12 °C |
| Initial boiling point and boiling range: | | 197 °C |
| Flash point: | | 111 °C |

Flammability

| | | |
|-------------------------|--|----------------|
| Solid: | | not applicable |
| Gas: | | not applicable |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |

Auto-ignition temperature

| | | |
|----------------------------|--|----------------|
| Solid: | | not applicable |
| Gas: | | not applicable |
| Decomposition temperature: | | not determined |

Oxidizing properties

| | | |
|---------------------|--|------------------------|
| Not oxidising. | | |
| Vapour pressure: | | 50 hPa |
| Density (at 20 °C): | | 1,05 g/cm ³ |
| Water solubility: | | easily soluble |

Solubility in other solvents

| | | |
|------------------------|--|----------------|
| not determined | | |
| Partition coefficient: | | -1,36 |
| Vapour density: | | not determined |
| Evaporation rate: | | not determined |

9.2. Other information

| | | |
|----------------|--|----------------|
| Solid content: | | not determined |
|----------------|--|----------------|

SECTION 10: Stability and reactivity
10.1. Reactivity

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No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Oxidising agent, strong Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Oxidising agent, strong acids. Bases.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 1613,1 mg/kg

| CAS No | Chemical name | | | | |
|------------|--|---------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 107-21-1 | ethanediol, ethylene glycol | | | | |
| | oral | ATE mg/kg | 500 | | |
| | dermal | LD50 mg/kg | 10600 | Rabbit | GESTIS |
| 64665-57-2 | Sodium 4(or 5)-methyl-1H-benzotriazolide | | | | |
| | oral | ATE mg/kg | 500 | | |

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (ethanediol, ethylene glycol)

Aspiration hazard

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

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information
12.1. Toxicity

The product is not: Ecotoxic.

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| CAS No | Chemical name | | | | | |
|-----------|--------------------------------|--------------|-----------|---------|---|-------------------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 107-21-1 | ethanediol, ethylene glycol | | | | | |
| | Acute fish toxicity | LC50 mg/l | 72860 | 96 h | Pimephales promelas (fathead minnow) | Experimental data |
| 1310-73-2 | sodium hydroxide; caustic soda | | | | | |
| | Acute fish toxicity | LC50 mg/l | 45,4 | 96 h | Onchorhynchus mykiss | |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|---|---------|
| 107-21-1 | ethanediol, ethylene glycol | -1,36 |
| 1303-96-4 | disodium tetraborate decahydrate; borax decahydrate | -1,53 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)**14.1. UN number:**

No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name:

No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es):

No dangerous good in sense of this transport regulation.

14.4. Packing group:

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

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| | |
|--|--|
| 14.1. UN number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|--|
| 14.1. UN number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):
disodium tetraborate decahydrate; borax decahydrate

Restrictions on use (REACH, annex XVII):

Entry 30: disodium tetraborate decahydrate; borax decahydrate

2004/42/EC (VOC): 30,997 % (325,467 g/l)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 2 - clearly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information
Abbreviations and acronymsADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Safety Data Sheet

according to Regulation (EC) No 1907/2006



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Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

| Classification | Classification procedure |
|--------------------|--------------------------|
| Acute Tox. 4; H302 | Calculation method |
| STOT RE 2; H373 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H360FD | May damage fertility. May damage the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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