

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**VA-013**

Revision date: 09.02.2021

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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

##### Use of the substance/mixture

engine coolant

##### Uses advised against

No data available

#### 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

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

Causes serious eye irritation.

May cause damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

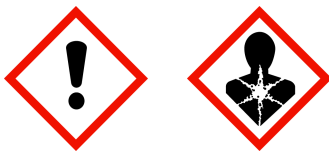
##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

ethanediol; ethylene glycol

Signal word: Warning

##### Pictograms:



##### Hazard statements

|      |                                                                    |
|------|--------------------------------------------------------------------|
| H302 | Harmful if swallowed.                                              |
| H319 | Causes serious eye irritation.                                     |
| 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.                                                         |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if        |

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P337+P313

P501

present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Dispose of contents / container in accordance with official regulations.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No    | Chemical name                                       |              |                  | Quantity     |
|-----------|-----------------------------------------------------|--------------|------------------|--------------|
|           | EC No                                               | Index No     | REACH No         |              |
|           | GHS Classification                                  |              |                  |              |
| 107-21-1  | ethanediol; ethylene glycol                         |              |                  | 90 - < 100 % |
|           | 203-473-3                                           | 603-027-00-1 | 01-2119456816-28 |              |
|           | Acute Tox. 4, STOT RE 2; H302 H373                  |              |                  |              |
| 3164-85-0 | Potassium 2-ethyl hexanoate                         |              |                  | 1 -< 3 %     |
|           | 221-625-7                                           |              |                  |              |
|           | Repr. 2, Skin Irrit. 2, Eye Dam. 1; H361d H315 H318 |              |                  |              |

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

#### Specific Conc. Limits, M-factors and ATE

| CAS No   | EC No                                             | Chemical name                            | Quantity     |
|----------|---------------------------------------------------|------------------------------------------|--------------|
|          |                                                   | Specific Conc. Limits, M-factors and ATE |              |
| 107-21-1 | 203-473-3                                         | ethanediol; ethylene glycol              | 90 - < 100 % |
|          | dermal: LD50 = 10600 mg/kg; oral: ATE = 500 mg/kg |                                          |              |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Use personal protection equipment. See section 8.

When in doubt or if symptoms are observed, get medical advice.

#### After inhalation

Remove person to fresh air and keep comfortable for breathing.

When in doubt or if symptoms are observed, get medical advice.

#### After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings.

When in doubt or if symptoms are observed, get medical advice.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth thoroughly with water.

Get medical advice/attention.

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

May cause respiratory irritation. The following symptoms may occur: Cough, Drowsiness, Headache

May be absorbed through the skin. Repeated exposure may cause skin dryness or cracking.

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Causes serious eye irritation. The following symptoms may occur: erythema (redness)

Harmful if swallowed. The following symptoms may occur: Vomiting Unconsciousness Nausea

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

Treat symptomatically.

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

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

alcohol resistant foam

Extinguishing powder

Carbon dioxide (CO<sub>2</sub>)

Water mist

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. Formation of toxic gases is possible during heating or in case of fire.

**5.3. Advice for firefighters**

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

Use water spray jet to protect personnel and to cool endangered containers.

**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****General measures**

Remove persons to safety. Provide adequate ventilation.

Use personal protective equipment as required. See section 8.

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For cleaning up**

Stop leak if safe to do so.

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

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**

Provide adequate ventilation as well as local exhaust at critical locations.

Use personal protective equipment as required. Personal protection equipment: see section 8

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Do not breathe gas/fumes/vapour/spray.  
Avoid contact with skin, eyes and clothes.

### 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 in a cool, well-ventilated place.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep only in the original container.

#### Hints on joint storage

No special measures are necessary.

### 7.3. Specific end use(s)

engine coolant

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

| CAS No   | Substance               | ppm | mg/m³ | fibres/ml | Category      | Origin |
|----------|-------------------------|-----|-------|-----------|---------------|--------|
| 107-21-1 | Ethane-1,2-diol, vapour | 20  | 52    |           | TWA (8 h)     | WEL    |
|          |                         | 40  | 104   |           | STEL (15 min) | WEL    |

#### DNEL/DMEL values

| CAS No                   | Substance                   | Exposure route | Effect   | Value            |
|--------------------------|-----------------------------|----------------|----------|------------------|
| 3164-85-0                | Potassium 2-ethyl hexanoate |                |          |                  |
| Worker DNEL, long-term   |                             | inhalation     | systemic | 32 mg/m³         |
| Worker DNEL, long-term   |                             | dermal         | systemic | 12 mg/kg bw/day  |
| Consumer DNEL, long-term |                             | inhalation     | systemic | 8 mg/m³          |
| Consumer DNEL, long-term |                             | dermal         | systemic | 6 mg/kg bw/day   |
| Consumer DNEL, long-term |                             | oral           | systemic | 2,5 mg/kg bw/day |

#### PNEC values

| CAS No              | Substance                   | Value      |
|---------------------|-----------------------------|------------|
| 3164-85-0           | Potassium 2-ethyl hexanoate |            |
| Freshwater          |                             | 0,36 mg/l  |
| Freshwater sediment |                             | 6,37 mg/l  |
| Marine sediment     |                             | 0,637 mg/l |
| Soil                |                             | 1,06 mg/l  |

### 8.2. Exposure controls



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### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.  
If handled uncovered, arrangements with local exhaust ventilation have to be used.  
Safe handling: see section 7

### 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.

### 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.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                      |                |
|----------------------|----------------|
| Physical state:      | Liquid         |
| Colour:              | violet         |
| Odour:               | characteristic |
| Odour threshold:     | not determined |
| pH-Value (at 20 °C): | 7,5 - 9        |

### Changes in the physical state

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| Melting point:                                            | -12 °C                    |
| Boiling point or initial boiling point and boiling range: | > 170 °C                  |
| Flash point:                                              | 111 °C                    |
| Sustaining combustion:                                    | Not sustaining combustion |

### Flammability

|               |                |
|---------------|----------------|
| Solid/liquid: | not applicable |
| Gas:          | not applicable |

### Explosive properties

The product is not: Explosive.

|                         |                |
|-------------------------|----------------|
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |

### Self-ignition temperature

|        |                |
|--------|----------------|
| Solid: | not applicable |
|--------|----------------|

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Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

The product is not: oxidising.

Vapour pressure: not determined

Density (at 20 °C): 1,12 g/cm<sup>3</sup>

Water solubility: easily soluble

**Solubility in other solvents**

not determined

Partition coefficient n-octanol/water: not determined

Viscosity / dynamic:  
(at 20 °C) 23,52 mPa·sViscosity / kinematic:  
(at 20 °C) 21 mm<sup>2</sup>/s

Relative vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

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**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Safe handling: see section 7

**10.5. Incompatible materials**Oxidising agent, strong  
Strong acid, alkalines  
Peroxides**10.6. Hazardous decomposition products**

Formation of toxic gases is possible during heating or in case of fire.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 516,0 mg/kg

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| CAS No   | Chemical name               |                  |         |        |        |
|----------|-----------------------------|------------------|---------|--------|--------|
|          | Exposure route              | Dose             | Species | Source | Method |
| 107-21-1 | ethanediol; ethylene glycol |                  |         |        |        |
|          | oral                        | ATE 500 mg/kg    |         |        |        |
|          | dermal                      | LD50 10600 mg/kg | Rabbit  | GESTIS |        |

### Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: 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].

### 11.2. Information on other hazards

#### Endocrine disrupting properties

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not: Ecotoxic.

### 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   |

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

### 12.6. Endocrine disrupting properties

No information available.

### 12.7. Other adverse effects

No information available.

### Further information

Avoid release to the environment.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. 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)

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

#### Inland waterways transport (ADN)

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

#### Marine transport (IMDG)

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

#### Air transport (ICAO-TI/IATA-DGR)

|                                          |                                                          |
|------------------------------------------|----------------------------------------------------------|
| <b>14.1. UN number:</b>                  | No dangerous good in sense of this transport regulation. |
| <b>14.2. UN proper shipping name:</b>    | No dangerous good in sense of this transport regulation. |
| <b>14.3. Transport hazard class(es):</b> | No dangerous good in sense of this transport regulation. |
| <b>14.4. Packing group:</b>              | 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. Maritime transport in bulk according to IMO instruments

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

Restrictions on use (REACH, annex XVII):

Entry 3

|                                                   |                                        |
|---------------------------------------------------|----------------------------------------|
| 2004/42/EC (VOC):                                 | 96,9 % (1085,28 g/l)                   |
| Information according to 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) |



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**National regulatory information**

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

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,15,16.

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road )

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%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

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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       |
| Eye Irrit. 2; H319 | Calculation method       |
| STOT RE 2; H373    | Calculation method       |

### Relevant H and EUH statements (number and full text)

|       |                                                                    |
|-------|--------------------------------------------------------------------|
| H302  | Harmful if swallowed.                                              |
| H315  | Causes skin irritation.                                            |
| H318  | Causes serious eye damage.                                         |
| H319  | Causes serious eye irritation.                                     |
| H361d | Suspected of damaging the unborn child.                            |
| H373  | May cause damage to organs through prolonged or repeated exposure. |

### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance 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.)*