Trade name: KRONES colclean AD 3003

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

1.1 **Product identifier**

Trade name

KRONES colclean AD 3003

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

Uses advised against No data available.

1.3 Details of the supplier of the safety data sheet

Address

KIC KRONES Internationale Cooperationsgesellschaft mbHBöhmerwaldstraße 593073Neutraubling

| Telephone no. | +49 9401 70-3020 |
|---------------|--------------------|
| Fax no. | +49 9401 70-3696 |
| e-mail | kic@kic-krones.com |
| e-mail | kic@kic-krones.com |

Advice on Safety Data Sheet sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord) In case of transport incidents and other emergencies: +44 (0) 1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Eye Dam. 1; H318 Met. Corr. 1; H290 Skin Corr. 1A; H314

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



Signal word Danger

Hazardous component(s) to be indicated on label: sulphuric acid

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| Hazard statement(s) H290 H314 | May be corrosive to metals. Causes severe skin burns and eye damage. |
|--|--|
| Precautionary statement | t(s) |
| P260 | Do not breathe dust. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| 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/doctor. |
| P390 | Absorb spillage to prevent material damage. |
| P501 | Dispose of contents/container to a facility in accordance with local and national regulations. |

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

| No | Substance name | | Addi | tional information | | |
|----|--------------------|-------------------------------------|------|--------------------|-------|-----|
| NU | | | | | | |
| | CAS / EC / Index / | Classification (EC) 1272/2008 (CLP) | Conc | entration | | % |
| | REACH no | | | | | |
| 1 | sulphuric acid | | | | | |
| | 7664-93-9 | Skin Corr. 1A; H314 | >= | 70.00 - < | 90.00 | wt% |
| | 231-639-5 | Eye Dam. 1; H318 | | | | |
| | 016-020-00-8 | | | | | |
| | 01-2119458838-20 | | | | | |
| 2 | 2-phosphonobutan | e-1,2,4-tricarboxylic acid | | | | |
| | 37971-36-1 | Met. Corr. 1; H290 | < | 5.00 | | wt% |
| | 253-733-5 | Eye Irrit. 2; H319 | | | | |
| | - | | | | | |
| | 01-2119436643-39 | | | | | |

Full Text for all H-phrases and EUH-phrases: pls. see section 16

| No | Note | Specific concentration limits | M-factor (acute) | M-factor (chronic) |
|----|------|--|---------------------|-----------------------|
| 1 | В | Eye Irrit. 2; H319: C >= 5% Skin Irrit. 2; H315: C >= 5% Eye Dam. 1; H318: C >= 15% Skin Corr. 1A; H314: C >= 15% | - | - |

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact

In case of contact with skin wash off with water. Call a doctor immediately.

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After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms burns

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

All quenching (arc-extinguishing) media available. Extinguishing measures to suit surroundings.

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Sulphur oxides (SxOy); Toxic gases/vapours

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Do not inhale explosion and/or combustion byproducts. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Cool closed containers exposed to fire with water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Remove persons to safety.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid contact with skin and eyes.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and

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launder thoroughly before reusing. Provide eye wash fountain in work area. Have emergency shower available.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original. Provide acid-resistant floor.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

| No | Substance name | CAS no. | EC no. |
|----|---|----------------------------|-------------------|
| 1 | sulphuric acid | 7664-93-9 | 231-639-5 |
| | 2009/161/EU | | |
| | sulphuric acid (mist) | | |
| | Mist | | |
| | WEL long-term (8-hr TWA reference period) | 0.05 mg/m ³ | |
| | List of approved workplace exposure limits (WELs) / | EH40 | |
| | Sulphuric acid mist | | |
| | WEL long-term (8-hr TWA reference period) | 0.05 mg/m ³ | |
| | Comments | The mist is defined as the | thoracic fraction |

DNEL, DMEL and PNEC values

DNEL values (worker) No Substance name CAS / EC no Effect **Route of exposure Exposure time** Value 1 sulphuric acid 7664-93-9 231-639-5 0.05 inhalative Long term (chronic) local mg/m³ inhalative Short term (acut) local 0.1 mg/m³

PNEC values No Substance name CAS / EC no ecological compartment Туре Value 1 sulphuric acid 7664-93-9 231-639-5 0.0025 water fresh water mg/L water marine water 0.00025 mg/L water fresh water sediment 0.002 mg/kg water marine water sediment 0.002 mg/kg sewage treatment plant 8.8 mg/L

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In

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case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific workstation suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

| viton | | |
|--------------|--------------------------------|--|
| >= | 0.7 | mm |
| >= | 480 | min |
| butyl rubber | | |
| >= | 0.7 | mm |
| >= | 120 | min |
| | >= >= butyl rubber >= | >= 0.7 >= 480 butyl rubber >= 0.7 |

Other

Chemical-resistant work clothes. Acid-resistant protective clothing

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| State of aggregation | | | |
|-------------------------------|---------------------|------------|------------|
| liquid | | | |
| Form/Colour | | | |
| liquid | | | |
| yellowish | | | |
| Odour | | | |
| odourless | | | |
| | | | |
| pH value Value | 1 | 1 | |
| | | • | |
| Boiling point / boiling range | | 400 | |
| Value | > | 180 | ° C |
| Melting point/freezing point | | | |
| Value | | -10 | °C |
| Decomposition temperature | | | |
| No data available | | | |
| Flash point | | | |
| No data available | | | |
| Ignition temperature | | | |
| No data available | | | |
| Auto-ignition temperature | | | |
| Comments | Product is not self | ianitina. | |
| | | . <u>g</u> | |
| Flammability | | | |
| No data available | | | |
| Lower explosion limit | | | |
| No data available | | | |
| Upper explosion limit | | | |

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| No data available | |
|--|---------------------|
| Vapour pressure | |
| No data available | |
| Relative vapour density | |
| No data available | |
| Relative density | |
| Value | 1.62 |
| Density | |
| Density No data available | |
| | |
| Solubility in water | |
| Comments | Completely miscible |
| Solubility | |
| No data available | |
| Partition coefficient n-octanol/water (log | a value) |
| No data available | , |
| Viscosity | |
| No data available | |
| Particle characteristics | |
| No data available | |
| | |
| 2 Other information | |
| Other information | |

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable at ambient temperature.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use. Reactions with metals, with evolution of hydrogen.

10.4 Conditions to avoid

High temperatures. Protect from heat and direct sunlight.

10.5 Incompatible materials

Bases; Reducing agents; Metals; Amines; Peroxides; organic materials

10.6 Hazardous decomposition products

None, if handled according to intended use.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

| 1 sulphuric acid 7664-93 LD50 | |
|------------------------------------|----------------------|
| | |
| Crassian Inst | 2140 mg/kg bodyweigh |
| Species rat | |
| Method OECD 401 | |
| Source ECHA | |

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| | inhalational toxicity | | | | |
|---------|--------------------------------------|--------------|------------------------|-------------|-------------------------|
| No dat | a available | | | | |
| | orrosion/irritation | | | | |
| No dat | a available | | | | |
| | s eye damage/irritation | | | | |
| No dat | a available | | | | |
| | atory or skin sensitisation | | | | |
| No dat | a available | | | | |
| | cell mutagenicity | | | | |
| No dat | a available | | | | |
| Repro | duction toxicity | | | | |
| | ubstance name | | CAS no. | | EC no. |
| | ulphuric acid | <u> </u> | 7664-93-9 | | 231-639-5 |
| | of exposure | inhalational | | | 1.2 |
| NOAE(| on of exposure | | 19 | 9.3 | mg/m³ |
| Specie | | rabbit | 10 |) | day(s) |
| Method | | OECD 414 | | | |
| Source | | ECHA | | | |
| | , tion/classification | | vailable data the cla | ssification | o criteria are not met. |
| | | | | | |
| | ogenicity a available | | | | |
| | | | | | |
| | - single exposure a available | | | | |
| | | | | | |
| | - repeated exposure ubstance name | | CAS no. | | EC no. |
| | ulphuric acid | | 7664-93-9 | | 231-639-5 |
| | of exposure | inhalational | | | 201 000 0 |
| LOAEC | | | 0. | 3 | mg/m³ |
| Duratic | on of exposure | | 28 | 3 | day(s) |
| Specie | S | rat | | | |
| Method | t | OECD 412 | | | |
| Source |) | ECHA | | | |
| Evalua | tion/classification | Based on a | vailable data, the cla | ssification | n criteria are not met. |
| | tion hazard | | | | |
| | a available | | | | |

Endocrine disrupting properties No data available.

Other information No data available.

NU Uala avaliable.

SECTION 12: Ecological information

12.1 Toxicity

| Toxi | icity to fish (acute) | | | | |
|------|-----------------------|--------------------|------|-----------|--|
| No | Substance name | CAS r | 10. | EC no. | |
| 1 | sulphuric acid | 7664-9 | 93-9 | 231-639-5 | |
| LC5 | 0 | 16 | - 28 | mg/l | |
| Dura | ation of exposure | | 96 | h | |
| Spe | cies | Lepomis macrochiru | S | | |

| Sou | rce | ECHA | | | | |
|------------|--|------------------------|-----------------|-----------|-----------|--|
| Tox | icity to fish (chronic) | | | | | |
| | Substance name | | CAS no. | | EC no. | |
| | sulphuric acid | | 7664-93-9 | | 231-639-5 | |
| NOE | | | | 0.025 | mg/l | |
| | ation of exposure | | | 65 | day(s) | |
| Spe | | Jordanella f | loridae | | | |
| Sou | rce | ECHA | | | | |
| | icity to Daphnia (acute) | | | | | |
| | Substance name | | CAS no. | | EC no. | |
| | sulphuric acid | | 7664-93-9 | | 231-639-5 | |
| EC5 | | > | | 100 | mg/l | |
| | ation of exposure | Danhuia ma | | 48 | h | |
| Spe Met | | Daphnia ma OECD 202 | igna | | | |
| Sou | | ECHA | | | | |
| | | | | | | |
| | icity to Daphnia (chronic) | | | | | |
| - | Substance name | | CAS no. | | EC no. | |
| 1 | sulphuric acid | | 7664-93-9 | 0.45 | 231-639-5 | |
| NOE | | | | 0.15 | mg/l | |
| Spe | ation of exposure | T. dissimilis | | 35 | day(s) | |
| Sou | | ECHA | | | | |
| | | LONIX | | | | |
| | icity to algae (acute) | | | | | |
| | Substance name | | CAS no. | | EC no. | |
| | sulphuric acid | | 7664-93-9 | 400 | 231-639-5 | |
| EC5 | ation of exposure | > | | 100 72 | mg/l h | |
| Spe | | Dosmodosr | nus subspicatus | | 11 | |
| Meth | | OECD 201 | | 5 | | |
| Sou | | ECHA | | | | |
| | | 1 | | | | |
| | icity to algae (chronic) data available | | | | | |
| NO C | | | | | | |
| Bac | teria toxicity | | | | | |
| No c | data available | | | | | |
| | Persistence and degradability No data available. | | | | | |
| | Bioaccumulative potential No data available. | | | | | |
| | Mobility in soil No data available. | | | | | |
| | Results of PBT and vPvB asses No data available. | ssment | | | | |
| | Endocrine disrupting propertie No data available. | S | | | | |
| 7 (| Other adverse effects | | | | | |

Other information

Do not discharge product unmonitored into the environment.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

| SECTION 14: Transport information | | | | |
|------------------------------------|--|---|--|--|
| 14.1 | Transport ADR/RID/ADN Class Classification code Packing group Hazard identification no. UN number Proper shipping name Tunnel restriction code Label | 8 C1 II 80 UN1830 SULPHURIC ACID E 8 | | |
| 14.2 | Transport IMDG Class Packing group UN number Proper shipping name EmS Label | 8 II UN1830 SULPHURIC ACID F-A, S-B 8 | | |
| 14.3 | Transport ICAO-TI / IATA Class Packing group UN number Proper shipping name Label | 8 II UN1830 Sulphuric acid 8 | | |
| 14.4 | Other information No data available. | | | |
| 14.5 | Environmental hazards Information on environmental hazards, if relevant, please see 14.1 - 14.3. | | | |
| 14.6 | Special precautions for user No data available. | | | |
| 14.7 | Maritime transport in bulk according to IMO instruments Not relevant | | | |
| SECTION 15: Regulatory information | | | | |
| | | | | |

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

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|---|---|-----------------------|--|--|
| | | | | |
| REACH candidate list of substances of ve | | | | |
| According to available data and the information provided by preliminary suppliers, the product does not contain | | | | |
| substances that are considered substances r | meeting the criteria for inclusion in annex XIV (List | of Substances Subject | | |
| to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006. | | | | |
| | | | | |
| Regulation (EC) No 1907/2006 (REACH) A | nnex XVII: RESTRICTIONS ON THE MANUFACT | URE, PLACING ON | | |
| THE MARKET AND USE OF CERTAIN DAM | IGEROUS SUBSTANCES, MIXTURES AND ARTI | CLES | | |
| The product is considered being subject to R | EACH regulation (EC) 1907/2006 annex | No 3 | | |
| XVII. | 5 (-) | - | | |
| | | | | |
| Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances | | | | |
| This product is not subject to Part 1 or 2 of A | nnex I. | | | |
| | | | | |

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

| H318 | Causes serious eye damage. |
|------|--------------------------------|
| H319 | Causes serious eye irritation. |

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

В

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Creation of the safety data sheet

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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