S A F E T Y D A T A S H E E T

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2020/878)

V-ZUG Steamer Cleaner

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

1.1. Product identifier

Product name	V-ZUG Steamer Cleaner
Product code	70022
Unique formula identifier (UFI)	U18J-40DQ-C209-5AX8

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

Use of the Substance/Mixture	Special cleaner for steam cooker (steamer).

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	düring ag Langwiesenstrasse 1 CH-8108 Dällikon Telefon: +41 44 847 27 47 E-Mail: info@dueringag.ch Distributor/Importer (Europa): V-ZUG AG Industriestrasse 66 CH-6302 Zug Telefon: +41 58 767 67 67 E-Mail: info@vzug.com
1.4. Emergency telephone number	Vergiftungs-Informations-Zentrale Freiburg: +49 761 192 40 Tox Info Schweiz: +41 44 251 51 51
Revision date	30.08.2023
Version	1

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008	Serious eye damage/eye irritation, Cat. 2, H319 Skin corrosion/irritation, Cat. 2, H315
Additional information	For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements

Signal Word	Warning
Hazard Statements	H315: Causes skin irritation. H319: Causes serious eye irritation.
Precautionary statements	P102: Keep out of reach of children. P302+P352: IF ON SKIN: Wash with plenty of soap and 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. P332+P313: If skin irritation occurs: Get medical advice/ attention. P337+P313: If eye irritation persists: Get medical advice/ attention.
Supplemental information	None.
Product identifier	2-aminoethanol; ethanolamine, CAS-No. 141-43-5, EC-No. 205-483-3 Sodium hydroxide; caustic soda, CAS-No. 1310-73-2, EC-No. 215-185-5
2.3. Other hazards	None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Liquid substance. Multi constituent substance.

Components	Weight %	CLP Classification	Product identifier
2-aminoethanol; ethanolamine	< 3%	Acute Tox. 4 H332, Acute Tox. 4 H312, Acute Tox. 4 H302, Skin Corr. 1B H314 [STOT SE 3 H335: C ≥ 5 %]	CAS-No.: 141-43-5 EC-No.: 205-483-3 Index-No: 603-030-00-8
Sodium hydroxide; caustic soda	< 1%	Skin Corr. 1A H314 [Skin Corr. 1A H314: C ≥ 5 % ¦ Skin Corr. 1B H314: 2 % ≤ C < 5 % ¦ Skin Irrit. 2 H315: 0,5 % ≤ C < 2 % ¦ Eye Irrit. 2 H319: 0,5 % ≤ C < 2 %]	CAS-No.: 1310-73-2 EC-No.: 215-185-5 Index-No: 011-002-00-6
Alcohols, C16-18, ethoxylated	< 1%	Acute Tox. 4 H302, Eye Dam. 1 H318, Aquatic Acute 1 H400	CAS-No.: 68439-49-6

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move to fresh air in case of accidental inhalation of vapours or decomposition products. Consult a physician for severe cases.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. If eye irritation persists, consult a specialist.

Ingestion Clean mouth with water and drink afterwards plenty of water. Prevent vomiting if possible. Consult a physician for severe cases.

4.2. Most important symptoms and effects, both acute and delayed The product contains no substances known to be hazardous to health in concentrations which need to be taken into account.

4.3. Indication of any immediate medical attention and special treatment needed None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.
Unsuitable extinguishing media	High volume water jet.
5.2. Special hazards arising from the substance or mixture	During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

5.3. Advice for firefighters

Special protective equipment for firefighters	Standard procedure for chemical fires. In the event of fire, wear self-contained breathing apparatus. Complete suit protecting against chemicals.
Specific methods	No special measures required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Avoid contact with skin and eyes.
For emergency responders	Use personal protective equipment. Avoid contact with skin and eyes.
6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system.
6.3. Methods and material for containment and cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
6.4. Reference to other sections	See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Avoid contact with skin and eyes.
7.2. Conditions for safe storage, including any incompatibilities	Store in a place accessible by authorized persons only. Keep container tightly closed. Store in original container.
7.3. Specific end use(s)	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	No data is available on the product itself.

2-aminoethanol; ethanolamine (CAS 141-43-5)

Switzerland - Occupational Exposure Limits - Sensitizers	Sensitizer
Switzerland - Occupational Exposure Limits - STELs - (KZGWs)	4 ppm STEL [KZGW] (aerosol, vapour) 10 mg/m3 STEL [KZGW] (aerosol, vapour)
Switzerland - Occupational Exposure Limits - TWAs - (MAKs)	2 ppm TWA [MAK] (aerosol, vapour) 5 mg/m3 TWA [MAK] (aerosol, vapour)
EU - Occupational Exposure (2006/15/EC) - Second List of Indicative Occupational Exposure Limit Values - Skin Notations	Possibility of significant uptake through the skin
EU - Occupational Exposure (2006/15/EC) - Second List of Indicative Occupational Exposure Limit Values - STELs	3 ppm STEL 7.6 mg/m3 STEL
EU - Occupational Exposure (2006/15/EC) - Second List of Indicative Occupational Exposure Limit Values - TWAs	1 ppm TWA 2.5 mg/m3 TWA
Austria - Occupational Exposure Limits - Skin Sensitizers	Skin sensitizer
Austria - Occupational Exposure Limits - STELs - (MAK-KZGWs)	3 ppm STEL [KZGW] (4 X 15 min) 7.6 mg/m3 STEL [KZGW] (4 X 15 min)
Austria - Occupational Exposure Limits - TWAs - (MAK-TMWs)	1 ppm TWA [TMW] 2.5 mg/m3 TWA [TMW]
Germany - DFG - Recommended Exposure Limits - Ceilings (Peak Limitations)	0.2 ppm Peak (can occur as vapor and aerosol at the same time) 0.51 mg/m3 Peak (can occur as vapor and aerosol at the same time)
Germany - DFG - Recommended Exposure Limits - Pregnancy	no risk to embryo/fetus if exposure limits adhered to
Germany - DFG - Recommended Exposure Limits - Sensitizers	skin sensitizer
Germany - DFG - Recommended Exposure Limits - TWAs (MAKs)	0.2 ppm TWA MAK (can occur as vapor and aerosol at the same time) 0.51 mg/m3 TWA MAK (can occur as vapor and aerosol at the same time)
Germany - TRGS 900 - Occupational Exposure Limits - TWAs (AGWs)	0.2 ppm TWA AGW (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed sum of vapor and aerosol, exposure factor 1) 0.5 mg/m3 TWA AGW (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed sum of vapor and aerosol, exposure factor 1)

Sodium hydroxide; caustic soda (CAS 1310-73-2)

Switzerland - Occupational Exposure Limits - Developmental Risk Groups	Developmental Risk Group C
Switzerland - Occupational Exposure Limits - STELs - (KZGWs)	2 mg/m3 STEL [KZGW] (inhalable dust)
Switzerland - Occupational Exposure Limits - TWAs - (MAKs)	2 mg/m3 TWA [MAK] (inhalable dust)
Austria - Occupational Exposure	4 mg/m3 STEL [KZGW] (inhalable fraction, 8 X 5 min)

Limits - STELs - (MAK-KZGWs) Austria - Occupational Exposure Limits - TWAs - (MAK-TMWs)	2 mg/m3 TWA [TMW] (inhalable fraction)

8.2. Exposure controls

Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	No special measures required.
Eye protection	Normally no eye protection necessary.
Skin and body protection	No special measures required.
Thermal hazards	No special measures required.
Environmental exposure controls	Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Characteristic.
Melting point/ freezing point:	0 °C - 100 °C
Boiling point or initial boiling point / range:	100 °C
Flammability:	Not determined.
Lower and upper explosion limit:	Not determined.
Flash point:	Not determined.
Auto-ignition temperature:	None.
Decomposition temperature:	Not determined.
pH:	> 13
Kinematic viscosity:	Not determined.
Solubility:	completely soluble (Water)
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density:	1.0230
Relative vapour density:	Not determined.
Particle characteristics:	Not applicable.

9.2. Other information

9.2.1 Information with regard to physical hazard classes	Alkaline reserve according to J.R. Young et al.: approx. 1.93 g H2SO4/100g product
9.2.2 Other safety characteristics	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	Reacts with strong oxidizing agents and acids with evolution of heat.
10.2. Chemical stability	No decomposition if used as directed.
10.3. Possibility of hazardous reactions	Exothermic reaction with strong acids.
10.4. Conditions to avoid	Burning produces obnoxious and toxic fumes.
10.5. Incompatible materials	Incompatible with strong acids and oxidizing agents.
10.6. Hazardous decomposition products	None reasonably foreseeable.

SECTION 11: Toxicological information

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

Acute toxicity	**2-aminoethanol; ethanolamine (CAS 141-43-5)** Dermal LD50 Rabbit = 1000 mg/kg (JAPAN_GHS) Inhalation LC50 Rat > 1.3 mg/L 6 h(ECHA_API) Oral LD50 Rat = 1720 mg/kg (NLM_CIP) **Sodium hydroxide; caustic soda (CAS 1310-73-2)** Dermal LD50 Rabbit = 1350 mg/kg (NLM_HSDB) Oral LD50 Rat = 325 mg/kg (OECD_SIDS) **Alcohols, C16-18, ethoxylated (CAS 68439-49-6)** Oral LD50 Rat = 1260 mg/kg (NLM_CIP)
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory / Skin Sensitisation	No data available.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	Irritating to mucous membranes.
Human experience	No data available.

11.2. Information on other hazards

Endocrine disrupting properties	No data available.
Other information	No data available.

SECTION 12: Ecological information

12.1. Toxicity	May change pH of waters.
2-aminoethanol; ethanolamine (CAS 141-43-5)	
EU - Ecolabel (66/2010) - Detergent Ingredient Database - Aerobic Degradation	Readily biodegradable according to OECD guidelines.
EU - Ecolabel (66/2010) - Detergent Ingredient Database - Anaerobic Degradation	Biodegradable under anaerobic conditions.
Ecotoxicity - Freshwater Algae - Acute Toxicity Data	EC50 72 h Desmodesmus subspicatus 15 mg/L (IUCLID)
Ecotoxicity - Freshwater Fish - Acute Toxicity Data	LC50 96 h Pimephales promelas 227 mg/L [flow-through] (IUCLID) LC50 96 h Brachydanio rerio 3684 mg/L [static] (IUCLID) LC50 96 h Lepomis macrochirus 300 - 1000 mg/L [static] (EPA) LC50 96 h Oncorhynchus mykiss 114 - 196 mg/L [static] (EPA) LC50 96 h Oncorhynchus mykiss >200 mg/L [flow-through] (EPA)
Ecotoxicity - Water Flea - Acute Toxicity Data	EC50 48 h Daphnia magna 65 mg/L (IUCLID)
Sodium hydroxide; caustic soda (CAS 1310-73-2)	
Ecotoxicity - Freshwater Fish - Acute Toxicity Data	LC50 96 h Oncorhynchus mykiss 45.4 mg/L [static] (IUCLID)
Alcohols, C16-18, ethoxylated (CAS 68439-49-6)	
EU - Ecolabel (66/2010) - Detergent Ingredient Database - Aerobic Degradation	Readily biodegradable according to OECD guidelines. (listed under Alcohol ethoxylate (C16-18, DID no 037 2-8 ethoxylated units, DID no 038 >9-18 ethoxylated units, DID no 038 20-30 ethoxylated units)) Inherently biodegradable according to OECD guidelines. (listed under Alcohol ethoxylate (C16-18, >30 ethoxylated units))
EU - Ecolabel (66/2010) - Detergent Ingredient Database - Anaerobic Degradation	Biodegradable under anaerobic conditions. (listed under Alcohol ethoxylate (C16-18, DID no 037 2-8 ethoxylated units, DID no 038 >9-18 ethoxylated units, DID no 038 20-30 ethoxylated units, DID no 040 >30 ethoxylated units))
12.2. Persistence and degradability	Neutralization is normally necessary before waste water is discharged into water treatment plants.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Endocrine disrupting properties	No information available.
12.7. Other adverse effects	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

14.1. UN number or ID number	Not applicable.
14.2. UN proper shipping name	Not applicable.
14.3. Transport hazard class(es)	Not applicable.
14.4. Packing group	Not applicable.
14.5. Environmental hazards	Not applicable.
14.6. Special precautions for user	Not applicable.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable.

UN Model Regulations

ADR/RID	Not regulated.
IMDG	Not regulated.
IATA	Not regulated.
Further Information	None.

SECTION 15: Regulatory information

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

Regulatory Information	None.
2-aminoethanol; ethanolamine (CAS 141-43-5)	
TEDX (The Endocrine Disruption Exchange) - Potential Endocrine Disruptors	Present
Switzerland - Water Protection Ordinance - Water Polluting Liquids Classification	B
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75.

EU - REACH (1907/2006) - List of Registered Intermediates	Present ([205-483-3])
EU - REACH (1907/2006) - List of Registered Substances	Present
Germany - Water Classification - Substances According to AwSV Classified By or Based on the VwVwS	Reg. no. 94, hazard class 2 - obviously hazardous to water
Sodium hydroxide; caustic soda (CAS 1310-73-2)	
Switzerland - Water Protection Ordinance - Water Polluting Liquids Classification	B (solution)
EU - Cosmetics (1223/2009) - Annex III - Conditions of Use and Warnings	Keep out of reach of children. Avoid contact with eyes. (pH adjuster for depilatories) Contains alkali. Avoid contact with eyes. Can cause blindness. Keep out of reach of children. (nail cuticle solvent) For professional use only. Avoid contact with eyes. Can cause blindness. (hair straightener, professional use) Contains alkali. Avoid contact with eyes. Can cause blindness. Keep out of reach of children. (hair straightener, general use)
EU - Cosmetics (1223/2009) - Annex III - Field of Application and/or Use	Nail cuticle solvent Hair straightener pH adjuster for depilatories Other uses as pH adjuster
EU - Cosmetics (1223/2009) - Annex III - Maximum Authorised Concentration	5 % MAC (nail cuticle solvent) 4.5 % MAC (hair straighteners, professional use) 2 % MAC (hair straighteners, general use)
EU - Cosmetics (1223/2009) - Annex III - Other Limitations and Requirements	<12.7 pH (pH adjuster for depilatories) <11 pH (other uses as pH adjuster) General use, professional use (hair straighteners)
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75.
EU - REACH (1907/2006) - List of Registered Intermediates	Present ([215-185-5])
EU - REACH (1907/2006) - List of Registered Substances	Present
Germany - Water Classification - Substances According to AwSV Classified By or Based on the VwVwS	Reg. no. 142, hazard class 1 - slightly hazardous to water (footnote 1)
Alcohols, C16-18, ethoxylated (CAS 68439-49-6)	
EU - No-Longer Polymers List (67/548/EEC)	NLP No. 500-212-8 (>1<2.5 mol ethoxylated units)
EU - REACH (1907/2006) - List of Registered Substances	Present
Germany - Water Classification - Substances According to AwSV Classified By or Based on the VwVwS	Reg. no. 670, hazard class 2 - obviously hazardous to water

15.2. Chemical safety assessment	Not required.

SECTION 16: Other information

Key or legend to abbreviations and acronyms	None.
Full text of phrases referred to under sections 2 and 3	H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H318: Causes serious eye damage. H319: Causes serious eye irritation. H332: Harmful if inhaled. H400: Very toxic to aquatic life.
Further information	Take notice of the directions of use on the label.
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.