MATERIAL SAFETY DATA SHEET

According to Regulation (EC) 1907/2006 (REACH)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Identification on the label/ trade name: STEFES Rust

1.3 Company/undertaking Identification:
STEFES GmbH
Wendenstr. 21 b
D-20097 Hamburg
Tel: +49 (40) 53308330
Fax: +49 (40) 533083329
info@stefes.eu
Information: department product safety

1.4 Emergency phone (24 hours): 0870-600-6266 [UK National Poisons Control Information Service (NPIS) Centre]

Section 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)
The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).
2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)
EUH210-Safety data sheet available on request.
2.3 Other hazards
The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %). The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
pH-value

Section 3: Composition/information on ingredients

3.1 Hazard ingredients:

Index	**---**
EINECS; ELINCS, NLP	215-753-2
CAS	1401-55-4
Content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Chronic 3, H412
Oxalic acid	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119534576-33-XXXX
Index	607-006-00-8
EINECS, ELINCS, NLP	205-634-3

CAS	144-62-7
Content %	<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16. The substances named in this section are given with their actual, appropriate classification! For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

Section 4: First aid measures

4.1 Description of first aid measures

Never pour anything into the mouth of an unconscious person!

Inhalation

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours. eyes, reddened
Watering eyes
With long-term contact:
reddening of the skin
Dermatitis (skin inflammation)
with formation of mist.
Irritation of the respiratory tract
Ingestion:
Irritation of the stomach
Nausea

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
Adapt to the nature and extent of fire.
Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media
None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Dispose of contaminated extinction water according to official regulations.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13

Section 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.
Store at room temperature.
Recommended storage temperature: 5°C - 35°C

7.3 Specific end use(s)

No information available at present.

Section 8: Exposure controls / Personal protection

Chemical Name	Oxalic acid		
WEL-TWA: 1mg/m3 (WEL,EU)		WEL-STEL:	2mg/m2 (OES)
Monitoring procedures:	---		
BMGV:	---	Other information:	---

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period)
EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term

exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and nonmetrological investigative techniques.
These are specified by e.g. EN 14042. EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feeding stuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
Recommended

Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:
0,5
Permeation time (penetration time) in minutes:
> 120
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions. The recommended maximum wearing time is 50% of breakthrough time. Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).
Respiratory protection:
If OES or MEL is exceeded.
Filter A P2 (EN 14387), code colour brown, white
Observe wearing time limitations for respiratory protection equipment.
Thermal hazards: Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

Section 9: Physical and chemical properties

9.1 General information:

Colour:	Beige
Physical state	Liquid

9.2 Important on physical and chemical properties.
9.2.1 Safety relevant basic data:

Property	**Values**
Odour:	Slightly
Odour threshold:	Not determined
pH:	1,5
Melting point /freezing point[°C]:	Not determined
Boiling point/range [°C]:	Not determined
Flash point [°C]:	Not determined

Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,02 g/cm3 (relative density)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive.
Oxidising properties:	No

9.3 Other information:

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

Section 10: Stability and reactivity

10.1 Reactivity
None known
10.2 Chemical stability
Stable with proper storage and handling.
10.3 Possibility of hazardous reactions
No dangerous reactions are known.
10.4 Conditions to avoid
Protect from direct sunlight.
Protect from frost.
10.5 Incompatible materials
Avoid contact with other chemicals.
Solvent
10.6 Hazardous decomposition products
No decomposition when used as directed.

Section 11: Toxicological information

11.1 Information to toxicological effects

Acute toxicity.

by oral route:	n.d.a.
by dermal route:	n.d.a.

by inhalation:	n.d.a.	
Skin corrosion/irritation:	OECD 431 (in Vitro Skin Corrosion – Human Skin Model Test)	Not irritant
Serious eye damage/irritation:	Not irritant, Expert judgement base d on SkinEthic HCE Model	
Respiratory or skin sensitization:	n.d.a.	
Germ cell mutagenicity:	n.d.a.	
Carcinogenicity:	n.d.a.	
Reproductive toxicity:	n.d.a.	
Specific target organ toxicity single exposure (STOT-SE):		n.d.a.
Specific target organ toxicity repeated exposure (STOTRE):		n.d.a.
Aspiration hazard:	n.d.a.	
Symptoms:	n.d.a.	

Tannins

Toxicity/effect LD50	2260 mg/kg (Rat)
Symptoms:	gastrointestinal disturbances, nausea and vomiting.

Oxalic acid

Toxicity / effect

Acute toxicity, by oral route LD50:	375 mg/kg (Rat)
Respiratory or skin sensitisation:	Not sensitizising
Symptoms:	respiratory distress, annoyance, heart/circulatory disorders, coughing, collapse, cramps, mucous membrane irritation, nausea and vomiting.

Section 12: Ecological information

12.1. Toxicity to fish:	n.d.a.
12.1. Toxicity to daphnia:	n.d.a.
12.1. Toxicity to algae:	n.d.a.
12.2. Persistence and degradability:	n.d.a.
12.3. Bioaccumulative potential:	n.d.a.
12.4. Mobility in soil:	n.d.a.
12.5. Results of PBT and vPvB assessment :	n.d.a.
12.6. Other adverse effects:	n.d.a.

Section 13: Disposal considerations

13.1 Waste treatment methods For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
20 01 14 Acids
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
E.g. dispose at suitable refuse site.
For contaminated packing material
Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

Section 14: Transport information

14.1 Land transport (ADR/RID/GGVSE):

UN-No:	Not regulated
Proper shipping name:	Not regulated
Hazard class:	Not regulated
Packing group:	Not regulated
Special Provisions	Not regulated
Tunnel restriction code:	Not regulated

14.2 Seatransport (IMDG / IMO -Code/GGVSee):

UN-No:	Not regulated
Proper shipping name:	Not regulated
Hazard class:	Not regulated
Packing group:	Not regulated
Environmental Hazard	Not regulated
Special Provisions	Not regulated

14.3 Air transport (ICAO-IATA/DGR):

UN-No:	Not regulated
Proper shipping name:	Not regulated
Hazard class:	Not regulated
Packing group:	Not regulated
Special Provisions	Not regulated

14.4 Special precautions for user
Unless specified otherwise, general measures for safe transport must be followed.
14.5 **Transport in bulk according to Annex II of MARPOL and the IBC Code**
Non-dangerous material according to Transport Regulations.

Section 15: Regulatory information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:
Observe restrictions:
General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): 0 %

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures

Section 16: Other information

Revised sections: Not regulated

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):
Not applicable
The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Acute Tox. — Acute toxicity - oral
Acute Tox. — Acute toxicity - dermal
Eye Dam. — Serious eye damage

Disclaimer
All information is based on our present knowledge and refer to the product in the form ready for use. The information is intended as a guidance for safe handling of the product and does not guarantee a product within the meaning of a technical specification. There are no conditions for the use of the product under the control of the manufacturer, the liability for the safe use of the product transferred to the user.
The client is requiring all employees who have contact with the product, learn about the hazards and personal protection measures in accordance with the MSDS.
The sheet was prepared based on the Material Safety Data Sheets of raw materials, as components of the preparation, as well as bibliographic databases and regulations relating to hazardous substances and chemical preparations.

People who are involved in the marketing of the product, according to schools in relation to the procedure, safety and hygiene. The drivers are trained to the corresponding certification in accordance with the requirements of the ADR regulations shall be issued.