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

1.1 Product identifier
   Trade name: Sika® Ferrogard® 903 +

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Product use: Corrosion protection

1.3 Details of the supplier of the safety data sheet
   Company name of supplier: Sika Limited
   Watchmead Welwyn Garden City
   Hertfordshire. AL7 1BQ
   Telephone: +44 (0)1707 394444
   Telefax: +44 (0)1707 329129
   E-mail address of person responsible for the SDS: EHS@uk.sika.com

1.4 Emergency telephone number
   +44 (0)1707 363899 (available during office hours).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification (REGULATION (EC) No 1272/2008)
   Skin corrosion, Sub-category 1B
   H314: Causes severe skin burns and eye damage.
   Serious eye damage, Category 1
   H318: Causes serious eye damage.
   Specific target organ toxicity - single exposure, Category 3, Respiratory system
   H335: May cause respiratory irritation.

2.2 Label elements
   Labelling (REGULATION (EC) No 1272/2008)
   Hazard pictograms:
   Signal word: Danger
   Hazard statements:
   H314: Causes severe skin burns and eye damage.
   H335: May cause respiratory irritation.
   Precautionary statements: Prevention:
P261 Avoid breathing dust/ fume/ gas/ mist/ va- 
pours/ spray.
P280 Wear protective gloves/ protective clothing/ 
eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do 
NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Im-
mEDIATELY call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Con-
tinue rinsing. Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label:

- 2-aminoethanol

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No. EC-No. Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>141-43-5 205-483-3 01-2119486455-28-XXXX</td>
<td>Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314 STOT SE 3; H335 Aquatic Chronic 3; H412 Eye Dam. 1; H318</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>2,2'-iminodiethanol</td>
<td>111-42-2 203-868-0 01-2119488930-28-XXXX</td>
<td>Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT RE 2; H373 Aquatic Chronic 3; H412</td>
<td>&gt;= 2,5 - &lt; 3</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
- Move out of dangerous area.
- Consult a physician.
- Show this safety data sheet to the doctor in attendance.

If inhaled:
- Move to fresh air.
- Consult a physician after significant exposure.

In case of skin contact:
- Take off contaminated clothing and shoes immediately.
- Wash off with soap and plenty of water.
- Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact:
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Continue rinsing eyes during transport to hospital.
- Remove contact lenses.
- Keep eye wide open while rinsing.

If swallowed:
- Do not induce vomiting without medical advice.
- Rinse mouth with water.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:
- Cough
- Respiratory disorder
- Dermatitis
- See Section 11 for more detailed information on health effects and symptoms.

Risks:
- Health injuries may be delayed.
- Corrosive effects
- Irritant effects
  - Causes serious eye damage.
  - May cause respiratory irritation.
  - Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment:
- Treat symptomatically.
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: No hazardous combustion products are known.

5.3 Advice for firefighters
Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.
Further information: Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions: Use personal protective equipment. Deny access to unprotected persons.

6.2 Environmental precautions
Environmental precautions: Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains, inform respective authorities.

6.3 Methods and material for containment and cleaning up
Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling: Do not breathe vapours or spray mist. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

Further information on storage stability: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s): Consult most current local Product Data Sheet prior to any use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

### Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters *</th>
<th>Basis *</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>141-43-5</td>
<td>TWA</td>
<td>1 ppm 2,5 mg/m³</td>
<td>2006/15/EC</td>
</tr>
<tr>
<td>Further information</td>
<td>Indicative, Identifies the possibility of significant uptake through the skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 ppm 7,6 mg/m³</td>
<td>2006/15/EC</td>
</tr>
<tr>
<td>Further information</td>
<td>Indicative, Identifies the possibility of significant uptake through the skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1 ppm 2,5 mg/m³</td>
<td>GB EH40</td>
</tr>
<tr>
<td>Further information</td>
<td>Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 ppm 7,6 mg/m³</td>
<td>GB EH40</td>
</tr>
<tr>
<td>Further information</td>
<td>Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166
    Eye wash bottle with pure water
    Wear eye/face protection.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:
    Butyl rubber/nitrile rubber gloves (0,4 mm)
    Contaminated gloves should be removed.

Suitable for permanent exposure:
    Viton gloves (0.4 mm), breakthrough time >30 min.

Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
    organic vapor filter (Type A)
    A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
    Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>ca. 10.7 (20 °C)</td>
</tr>
<tr>
<td>Melting point/range / Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>ca. 108 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>23 hPa</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>ca. 1.06 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>&gt; 7 mm²/s (40 °C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**9.2 Other information**

No data available

Country GB  100000020155
SECTION 10: Stability and reactivity

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
The product is chemically stable.

10.3 Possibility of hazardous reactions
Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid : No data available

10.5 Incompatible materials
Materials to avoid : No data available

10.6 Hazardous decomposition products
No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not classified based on available information.

Components:

2-aminoethanol:
Acute oral toxicity : LD50 Oral (Rat): 1.720 mg/kg
Acute dermal toxicity : LD50 Dermal (Rabbit): 1.025 mg/kg

2,2'-iminodiethanol:
Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate

Skin corrosion/irritation
Causes severe burns.

Serious eye damage/eye irritation
Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.
Respiratory sensitisation
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
May cause respiratory irritation.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

2,2'-iminodiethanol:
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 55 mg/l
Exposure time: 48 h
Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 75 mg/l
Exposure time: 72 h

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

Product:
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Contaminated packaging: 15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

ADR: UN 2491
IMDG: UN 2491
IATA: UN 2491

14.2 UN proper shipping name

ADR: ETHANOLAMINE, SOLUTION
IMDG: ETHANOLAMINE SOLUTION
IATA: Ethanolamine solution

14.3 Transport hazard class(es)

ADR: 8
IMDG: 8
IATA: 8

14.4 Packing group

ADR
Packing group: III
Classification Code: C7
Hazard Identification Number: 80
14.5 Environmental hazards

ADR
Environmentally hazardous : no

IMDG
Marine pollutant : no

IATA (Passenger)
Environmentally hazardous : no

IATA (Cargo)
Environmentally hazardous : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) : Not applicable
Schedules of Toxic Chemicals and Precursors :

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : None of the components are listed (=> 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII): Conditions of restriction for the following entries should be considered:
Number on list 3

REACH Information: All substances contained in our Products are
- registered by our upstream suppliers, and/or
- registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Not applicable

Volatile organic compounds: Law on the incentive tax for volatile organic compounds (VOCV)
no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 12,73 %

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environmental regulation/legislation specific for the substance or mixture:
Environmental Protection Act 1990 & Subsidiary Regulations
Health and Safety at Work Act 1974 & Subsidiary Regulations
Control of Substances Hazardous to Health Regulations (COSHH)
May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

15.2 Chemical safety assessment
No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements
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.
H332 : Harmful if inhaled.
H335 : May cause respiratory irritation.
H373 : May cause damage to organs through prolonged or repeated exposure.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage
Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
STOT RE : Specific target organ toxicity - repeated exposure
STOT SE : Specific target organ toxicity - single exposure
2006/15/EC : Europe. Indicative occupational exposure limit values
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
2006/15/EC / TWA : Limit Value - eight hours
2006/15/EC / STEL : Short term exposure limit
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
DNEL : Derived no-effect level
EC50 : Half maximal effective concentration
GHS : Globally Harmonized System
IATA : International Air Transport Association
IMDG : International Maritime Code for Dangerous Goods
LD50 : Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50 : Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
OEL : Occupational Exposure Limit
PBT : Persistent, bioaccumulative and toxic
PNEC : Predicted no effect concentration
SVHC : Substances of Very High Concern
vPvB : Very persistent and very bioaccumulative

Further information
Classification of the mixture:

Skin Corr. 1B H314 : Calculation method
Eye Dam. 1 H318 : Calculation method
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Sika® Ferrogard® 903 +

Revision Date 28.03.2019  Version 0.0  Print Date 28.03.2019

STOT SE 3  H335  Calculation method

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version!

GB / EN