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

### 1.1 Product identifier

Trade name : 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 South Africa (Pty) Ltd
9 Hocking Place
Westmead
3608 Pinetown
South Africa

Telephone : +27 (0)31 792 6500
Telefax : +27 (0)31 700 1760
E-mail address of person responsible for the SDS : headoffice@za.sika.com

### 1.4 Emergency telephone number

+27 82 490 9409

## SECTION 2: Hazards identification

Type of product : Mixture

### 2.1 Classification of the substance or mixture

**Classification (SANS 10234)**

| | |
|---|---|
| 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 (SANS 10234)**

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/ vapours/ 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. Immediately 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. Continue 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

**Hazardous components**

| Chemical name | CAS-No.<br>EC-No.<br>Registration number | Classification (SANS 10234) | Concentration (% w/w) |
|---|---|---|---|
| 2-aminoethanol | 141-43-5<br>205-483-3<br>01-2119486455-28-XXXX | Acute Tox.4; H332<br>Acute Tox.4; H312<br>Acute Tox.4; H302<br>Skin Corr.1B; H314<br>STOT SE3; H335<br>Aquatic Chronic3; H412<br>Eye Dam.1; H318 | >= 5 - < 10 |
| 2,2'-iminodiethanol | 111-42-2<br>203-868-0 | Acute Tox.4; H302<br>Skin Irrit.2; H315 | >= 2,5 - < 3 |

| | | | |
|---|---|---|---|
| | 01-2119488930-28-XXXX | Eye Dam.1; H318<br>STOT RE2; H373<br>Aquatic Chronic3; H412 | |

For explanation of abbreviations see section 16.

## 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.

Other data : 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**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| 2,2'-iminodiethanol | 111-42-2 | TWA OEL-RL | 3 ppm<br>15 mg/m3 | ZA OEL |
| Further information | Recommended Limit | | | |

### 8.2 Exposure controls

**Personal protective equipment**

| | | |
|---|---|---|
| Eye protection | : | Safety glasses with side-shields conforming to EN166<br>Eye wash bottle with pure water<br>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.<br><br>Suitable for short time use or protection against splashes:<br>Butyl rubber/nitrile rubber gloves (0,4 mm)<br>Contaminated gloves should be removed.<br>Suitable for permanent exposure:<br>Viton gloves (0.4 mm),<br>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 additionaly recommended for mixing and stirring work. |
| 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.<br>organic vapor filter (Type A)<br>A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm<br>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 sufficent to keep the concentrations under the occupational exposure limits then respiration protection measures must be used. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | colourless |
| Odour | : | characteristic |
| Odour Threshold | : | No data available |
| Flash point | : | 108 °C |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |

| | | |
|---|---|---|
| Lower explosion limit (Vol-%) | : | No data available |
| Upper explosion limit (Vol-%) | : | No data available |
| Flammability | : | No data available |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| pH | : | ca. 10,7 |
| Melting point/range / Freezing point | : | No data available |
| Boiling point/boiling range | : | No data available |
| Vapour pressure | : | 23 hPa |
| Density | : | ca.1,06 g/cm3<br>at 20 °C |
| Water solubility | : | soluble |
| Partition coefficient: n-octanol/water | : | No data available |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | > 7 mm2/s<br>at 40 °C |
| Relative vapour density | : | No data available |
| Evaporation rate | : | No data available |

**9.2 Other information**

No data available

## 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<br>Exposure time: 48 h |
| Toxicity to algae | : | EC50 (Pseudokirchneriella subcapitata (green algae)): 75 mg/l<br>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:**

| | | |
|---|---|---|
| Additional ecological information | : | There is no data available for this product. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

| | | |
|---|---|---|
| Product | : | The generation of waste should be avoided or minimized wherever possible.<br>Empty containers or liners may retain some product residues.<br>This material and its container must be disposed of in a safe way.<br>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.

| | | |
|---|---|---|
| European Waste Catalogue | : | 16 10 01* aqueous liquid wastes containing dangerous substances |
| Contaminated packaging | : | 15 01 10* packaging containing residues of or contaminated by dangerous substances |

## SECTION 14: Transport information

**14.1 UN number**

Not regulated as a dangerous good

**14.2 UN proper shipping name**

Not regulated as a dangerous good

**14.3 Transport hazard class(es)**

Not regulated as a dangerous good

**14.4 Packing group**

Not regulated as a dangerous good

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

No data available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15: Regulatory information

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

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

| | | |
|---|---|---|
| Volatile organic compounds | : | Law on the incentive tax for volatile organic compounds (VOCV)<br>Remarks: no VOC duties<br><br>Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)<br>Volatile organic compounds (VOC) content: 12,73 %, 469,07 g/l<br>Remarks: VOC content excluding water<br><br>Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)<br>Volatile organic compounds (VOC) content: 12,73 %, 134,9 g/l<br>Remarks: VOC content valid only for coating materials used on wood surfaces |

### 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 |
| 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 | : | Half maximal effective concentration |
| 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) |
| MARPOL | : | International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 |
| OEL | : | Occupational Exposure Limit |
| PBT | : | Persistent, bioaccumulative and toxic |
| PNEC | : | Predicted no effect concentration |
| REACH | : | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency |
| SVHC | : | Substances of Very High Concern |
| vPvB | : | Very persistent and very bioaccumulative |

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Skin Corr. 1B | H314 | Calculation method |
| Eye Dam. 1 | H318 | Calculation method |
| 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.

ZA / EN