# 52904XX_PRE-WASH ALKALINE

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## SECTION 1: IDENTIFICATION

**1.1 GHS Product identifier:** 52904XX_PRE-WASH ALKALINE

**Other means of identification:**

Non-applicable

**1.2 Recommended use of the chemical and restrictions on use:**

Relevant uses: Product for cleaning tunnel washers. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Supplier's details:**

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**1.4 Emergency phone number:** +32 3 575 55 55

## SECTION 2: HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture:**

**SANS 10234:**

Classification of this product has been carried out in accordance with SANS 10234:2008 Edition 1.1.

Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 4: Flammable liquids, Category 4, H227
Skin Corr. 1: Skin corrosion, Category 1, H314

**2.2 GHS label elements, including precautionary statements:**

**SANS 10234:**

**Danger**

**Hazard statements:**

Flam. Liq. 4: H227 - Combustible liquid.
Skin Corr. 1: H314 - Causes severe skin burns and eye damage.

**Precautionary statements:**

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Immediately remove/take off all contaminated clothing. Immediately rinse skin with water/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.
P501: Dispose of contents and / or their container according to the separated collection system used in your municipality.

**Substances that contribute to the classification**

D-Glucopyranose, oligomers, decyl octyl glycosides; tetrasodium ethylene diamine tetraacetate; potassium hydroxide; 2-aminoethanol

**2.3 Other hazards which do not result in classification:**

Non-applicable

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances:**

Non-applicable

**3.2 Mixtures:**

**Chemical description:** Aqueous solution based on complexing agents, glycol-ethers and surfactants.

**Components:**

In accordance with SANS 11014:2010, the product contains:

| Identification | Chemical name/Classification | Concentration |
|---|---|---|
| CAS: 68515-73-1 | **D-Glucopyranose, oligomers, decyl octyl glycosides**<br>Eye Dam. 1: H318 - Danger | **5 - <10 %** |
| CAS: 64-02-8 | **tetrasodium ethylene diamine tetraacetate**<br>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; STOT RE 2: H373 - Danger | **5 - <10 %** |
| CAS: 111-76-2 | **2-butoxyethanol**<br>Acute Tox. 3: H331; Acute Tox. 4: H302; Acute Tox. 5: H313; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Danger | **2,5 - <5 %** |
| CAS: 1310-58-3 | **potassium hydroxide**<br>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger | **2,5 - <5 %** |
| CAS: 141-43-5 | **2-aminoethanol**<br>Acute Tox. 4: H302+H312+H332; Aquatic Acute 3: H402; Aquatic Chronic 3: H412; Flam. Liq. 4: H227; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger | **1 - <2,5 %** |
| CAS: 5064-31-3 | **trisodium nitrilotriacetate**<br>Acute Tox. 4: H302; Carc. 2: H351; Eye Irrit. 2: H319 - Warning | **<0,4 %** |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

## SECTION 4: FIRST AID MEASURES

**4.1 Description of necessary first-aid measures:**

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation,however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

## SECTION 5: FIRE-FIGHTING MEASURES

**5.1 Suitable extinguishing media:**

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## SECTION 5: FIRE-FIGHTING MEASURES (continued)

**Suitable extinguishing media:**

Combustible liquid. If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO ).

**Unsuitable extinguishing media:**

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

**5.2 Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Special protective actions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

**For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

It is recommended to avoid environmental spillage of both the product and its container.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:**

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

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## SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: 0 ºC

Maximum Temp.: 45 ºC

Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace:

Annexure A of the Hazardous Chemical Substances Regulations, 1995 (Updated 2008):

| Identification | Occupational exposure limits | | |
|---|---|---|---|
| 2-butoxyethanol | TWA OEL-CL | 25 ppm | 120 mg/m³ |
| CAS: 111-76-2 | SHORT TERM OEL-CL | | |
| potassium hydroxide | TWA OEL-CL | | |
| CAS: 1310-58-3 | SHORT TERM OEL-CL | | 2 mg/m³ |
| 2-aminoethanol | TWA OEL-CL | 3 ppm | 8 mg/m³ |
| CAS: 141-43-5 | SHORT TERM OEL-CL | 6 ppm | 15 mg/m³ |

**Biological exposure indices (BEIs) for hazardous chemical agents:**

Regulations for hazardous chemical agents 2021

| Identification | BEIs® | Determinant | Sample time |
|---|---|---|---|
| 2-butoxyethanol<br>CAS: 111-76-2 | 0 mg/L | Butoxyacetic acid (BAA) (urine) | End of shift |

**8.2 Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment (PPE)

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.
All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

| Pictogram | PPE | Remarks |
|---|---|---|
|  Mandatory hand protection | Chemical protective gloves (Material: Linear low -density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0,062 mm) | Replace the gloves at any sign of deterioration. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Remarks |
|---|---|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing. |

E.- Bodily protection

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Remarks |
|---|---|---|
| | Work clothing | Replace before any evidence of deterioration. |
| | Anti-slip work shoes | Replace before any evidence of deterioration. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|---|---|
|  Emergency shower | ANSI Z358-1<br>ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899<br>ISO 3864-1:2011, ISO 3864-4:2011 |

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

| | |
|---|---|
| Physical state at 20 ºC: | Liquid |
| Appearance: | Transparent |
| Color: | Brown |
| Odor: | Characteristic |
| Odour threshold: | Non-applicable * |

**Volatility:**

| | |
|---|---|
| Boiling point at atmospheric pressure: | 103 ºC |
| Vapour pressure at 20 ºC: | 2317 Pa |
| Vapour pressure at 50 ºC: | 12209,24 Pa (12,21 kPa) |
| Evaporation rate at 20 ºC: | Non-applicable * |

**Product description:**

| | |
|---|---|
| Density at 20 ºC: | 1067,4 kg/m³ |
| Relative density at 20 ºC: | 1,067 |
| Dynamic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 40 ºC: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | 12,57 - 13,57 (at 100 %) |
| Vapour density at 20 ºC: | Non-applicable * |
| Partition coefficient n-octanol/water 20 ºC: | Non-applicable * |
| Solubility in water at 20 ºC: | Non-applicable * |
| Solubility properties: | Non-applicable * |
| Decomposition temperature: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|---|---|
| Melting point/freezing point: | Non-applicable * |
| **Flammability:** | |
| Flash Point: | 80 ºC |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | 238 ºC |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |
| **Particle characteristics:** | |
| Median equivalent diameter: | Non-applicable |

**9.2 Other information:**

**Information with regard to physical hazard classes:**

| | |
|---|---|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |
| Heat of combustion: | Non-applicable * |
| Aerosols-total percentage (by mass) of flammable components: | Non-applicable * |
| **Other safety characteristics:** | |
| Surface tension at 20 ºC: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|---|---|---|---|---|
| Not applicable | Not applicable | Risk of combustion | Avoid direct impact | Not applicable |

**10.5 Incompatible materials:**

| Acids | Water | Oxidising materials | Combustible materials | Others |
|---|---|---|---|---|
| Avoid strong acids | Not applicable | Precaution | Not applicable | Not applicable |

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO ), carbon monoxide and other organic compounds

## SECTION 11: TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

| Identification | Acute toxicity | | Genus |
|---|---|---|---|
| 2-butoxyethanol | LD50 oral | 1200 mg/kg (ATEi) | Rat |
| CAS: 111-76-2 | LD50 dermal | 3000 mg/kg | Rabbit |
| | LC50 inhalation | 3 mg/L (ATEi) | |
| 2-aminoethanol | LD50 oral | 500 mg/kg (ATEi) | Rat |
| CAS: 141-43-5 | LD50 dermal | 1025 mg/kg (ATEi) | Rabbit |
| | LC50 inhalation | 11 mg/L (4 h) | Rat |

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

| Identification | Acute toxicity | | Genus |
|---|---|---|---|
| tetrasodium ethylene diamine tetraacetate | LD50 oral | 1913 mg/kg (ATEi) | Rat |
| CAS: 64-02-8 | LD50 dermal | Non-applicable | |
| | LC50 inhalation | 11 mg/L (ATEi) | |
| potassium hydroxide | LD50 oral | 388 mg/kg (ATEi) | Rat |
| CAS: 1310-58-3 | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| trisodium nitrilotriacetate | LD50 oral | 686 mg/kg | Mouse |
| CAS: 5064-31-3 | LD50 dermal | >5000 mg/kg | |
| | LC50 inhalation | Non-applicable | |

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

**12.1 Toxicity:**

**Acute toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| D-Glucopyranose, oligomers, decyl octyl glycosides | LC50 | 126 mg/L (96 h) | Brachydanio rerio | Fish |
| CAS: 68515-73-1 | EC50 | 151 mg/L (48 h) | Acartia tonsa | Crustacean |
| | EC50 | 27 mg/L (72 h) | Scenedesmus subspicatus | Algae |
| tetrasodium ethylene diamine tetraacetate | LC50 | 121 mg/L (96 h) | Lepomis macrochirus | Fish |
| CAS: 64-02-8 | EC50 | 140 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | Non-applicable | | |
| 2-butoxyethanol | LC50 | 1490 mg/L (96 h) | Lepomis macrochirus | Fish |
| CAS: 111-76-2 | EC50 | 1815 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 911 mg/L (72 h) | Pseudokirchneriella subcapitata | Algae |
| potassium hydroxide | LC50 | 80 mg/L (48 h) | Gambussia afinis | Fish |
| CAS: 1310-58-3 | EC50 | Non-applicable | | |
| | EC50 | Non-applicable | | |
| 2-aminoethanol | LC50 | 349 mg/L (96 h) | Cyprinus carpio | Fish |
| CAS: 141-43-5 | EC50 | 65 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 22 mg/L (72 h) | Scenedesmus subspicatus | Algae |
| trisodium nitrilotriacetate | LC50 | 240,4 mg/L (96 h) | Carassius auratus | Fish |
| CAS: 5064-31-3 | EC50 | 950 mg/L (24 h) | Daphnia magna | Crustacean |
| | EC50 | 510 mg/L (120 h) | Microcystis aeruginosa | Algae |

**Chronic toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| D-Glucopyranose, oligomers, decyl octyl glycosides | NOEC | 1,8 mg/L | Danio rerio | Fish |
| CAS: 68515-73-1 | NOEC | 2 mg/L | Daphnia magna | Crustacean |
| tetrasodium ethylene diamine tetraacetate | NOEC | 25,7 mg/L | Danio rerio | Fish |
| CAS: 64-02-8 | NOEC | 25 mg/L | Daphnia magna | Crustacean |
| 2-butoxyethanol | NOEC | 100 mg/L | Danio rerio | Fish |
| CAS: 111-76-2 | NOEC | 100 mg/L | Daphnia magna | Crustacean |
| 2-aminoethanol | NOEC | 1,24 mg/L | Oryzias latipes | Fish |
| CAS: 141-43-5 | NOEC | 0,85 mg/L | Daphnia magna | Crustacean |
| trisodium nitrilotriacetate | NOEC | 54 mg/L | Pimephales promelas | Fish |
| CAS: 5064-31-3 | NOEC | Non-applicable | | |

**12.2 Persistence and degradability:**

**Substance-specific information:**

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## SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Degradability | | Biodegradability | |
|---|---|---|---|---|
| D-Glucopyranose, oligomers, decyl octyl glycosides<br>CAS: 68515-73-1 | BOD5 | Non-applicable | Concentration | Non-applicable |
| | COD | Non-applicable | Period | 28 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 100 % |
| 2-butoxyethanol<br>CAS: 111-76-2 | BOD5 | 0,71 g O2/g | Concentration | 100 mg/L |
| | COD | 2,2 g O2/g | Period | 14 days |
| | BOD5/COD | 0,32 | % Biodegradable | 96 % |
| 2-aminoethanol<br>CAS: 141-43-5 | BOD5 | Non-applicable | Concentration | 20 mg/L |
| | COD | Non-applicable | Period | 21 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 90 % |

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

| Identification | Bioaccumulation potential | |
|---|---|---|
| tetrasodium ethylene diamine tetraacetate<br>CAS: 64-02-8 | BCF | 2 |
| | Pow Log | -13 |
| | Potential | Low |
| 2-butoxyethanol<br>CAS: 111-76-2 | BCF | 3 |
| | Pow Log | 0,83 |
| | Potential | Low |
| 2-aminoethanol<br>CAS: 141-43-5 | BCF | 3 |
| | Pow Log | -1,31 |
| | Potential | Low |

**12.4 Mobility in soil:**

| Identification | Absorption/desorption | | Volatility | |
|---|---|---|---|---|
| D-Glucopyranose, oligomers, decyl octyl glycosides<br>CAS: 68515-73-1 | Koc | 50 | Henry | 1,2E-8 Pa·m³/mol |
| | Conclusion | Very High | Dry soil | No |
| | Surface tension | Non-applicable | Moist soil | No |
| tetrasodium ethylene diamine tetraacetate<br>CAS: 64-02-8 | Koc | 1046 | Henry | 0E+0 Pa·m³/mol |
| | Conclusion | Low | Dry soil | No |
| | Surface tension | Non-applicable | Moist soil | No |
| 2-butoxyethanol<br>CAS: 111-76-2 | Koc | 8 | Henry | 1,621E-1 Pa·m³/mol |
| | Conclusion | Very High | Dry soil | No |
| | Surface tension | 2,729E-2 N/m (25 ºC) | Moist soil | Yes |
| 2-aminoethanol<br>CAS: 141-43-5 | Koc | 0,27 | Henry | 3,7E-5 Pa·m³/mol |
| | Conclusion | Very High | Dry soil | No |
| | Surface tension | 5,025E-2 N/m (25 ºC) | Moist soil | No |

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

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## SECTION 13: DISPOSAL CONSIDERATIONS (continued)

National Environmental Management: Waste act, 2008
National Environmental Management: Waste amendment act, 2014

## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to SANS 10228:


| | | |
|---|---|---|
| **14.1** | **UN number:** | UN3267 |
| **14.2** | **UN proper shipping name:** | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (potassium hydroxide) |
| **14.3** | **Transport hazard class(es):** | 8 |
| | Labels: | 8 |
| **14.4** | **Packing group, if applicable:** | II |
| **14.5** | **Environmental hazard:** | No |
| **14.6** | **Special precautions for user** | |
| | Physico-Chemical properties: | see section 9 |
| **14.7** | **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 40-20:


| | | |
|---|---|---|
| **14.1** | **UN number:** | UN3267 |
| **14.2** | **UN proper shipping name:** | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (potassium hydroxide) |
| **14.3** | **Transport hazard class(es):** | 8 |
| | Labels: | 8 |
| **14.4** | **Packing group, if applicable:** | II |
| **14.5** | **Marine pollutant:** | No |
| **14.6** | **Special precautions for user** | |
| | Special regulations: | 274 |
| | EmS Codes: | F-A, S-B |
| | Physico-Chemical properties: | see section 9 |
| | Limited quantities: | 1 L |
| | Segregation group: | SGG18 |
| **14.7** | **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2023:


| | | |
|---|---|---|
| **14.1** | **UN number:** | UN3267 |
| **14.2** | **UN proper shipping name:** | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (potassium hydroxide) |
| **14.3** | **Transport hazard class(es):** | 8 |
| | Labels: | 8 |
| **14.4** | **Packing group, if applicable:** | II |
| **14.5** | **Environmental hazard:** | No |
| **14.6** | **Special precautions for user** | |
| | Physico-Chemical properties: | see section 9 |
| **14.7** | **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

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## SECTION 15: REGULATORY INFORMATION (continued)

**15.1 Safety, health and environmental regulations specific for the product in question:**

**Relevant instructions for use:**

Apply with dosing pump, dosing 25 mL/min. For commercial vehicles, dilute between 3 and 6%, let it work for 3 minutes maximum.

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

Hazardous Substances Act 15 of 1973 and Amendments.
Occupational Health and Safety Act 85 of 1993 and Amendments.
National Environmental Management Act 107 of 1998 and Amendments.
National Environmental Management: Waste Act, 2008 and Amendments.
National Environment Management: Air Quality Act 39 of 2004 and Amendments.
National Water Act 36, 1998 and Amendments.
Basic Conditions of Employment Act 75 of 1997 and Amendments.

## SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with SANS 11014:2010 - Safety data sheet for chemical products — Content and order of sections

**Texts of the legislative phrases mentioned in section 2:**

H318: Causes severe eye damage.
H314: Causes severe skin burns and eye damage.
H227: Combustible liquid.

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**SANS 10234:**

Acute Tox. 3: H331 - Toxic if inhaled.
Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
Acute Tox. 5: H313 - May be harmful in contact with skin.
Aquatic Acute 3: H402 - Harmful to aquatic life.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Carc. 2: H351 - Suspected of causing cancer.
Eye Dam. 1: H318 - Causes severe eye damage.
Eye Irrit. 2: H319 - Causes severe eye irritation.
Flam. Liq. 4: H227 - Combustible liquid.
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).
STOT SE 3: H335 - May cause respiratory irritation.

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

https://www.sabs.co.za/
https://www.gov.za/documents

**Abbreviations and acronyms:**

- CONTINUED ON NEXT PAGE -

## SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
IARC: International Agency for Research on Cancer



END OF SAFETY DATA SHEET