



**VORTEX**  
PREMIUM SOLVENTS

## Safety Data Sheet

Caustic Soda

Version 1.0

Issue Date 01.10.2023

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

**Product identifier**

**Trade name**

Caustic Soda Solution

**Synonyms**

White Caustic; Lye, Diaphragm Cell (DC) Caustic Soda  
Solution, Membrane Cell (MBC) Caustic Soda Solution

**Relevant identified uses of the substance or mixture and uses advised against**

**Use**

Industrial use.

**Manufacturer or supplier's details**

**Company**

Nyundo Trading (Pty) Ltd

**Address**

5A Jig Rd  
Montague Gardens Cape Town  
South Africa  
7441

**Telephone**

+27215102679

**E-mail address**

info@vortexsolvents.com

**Emergency telephone number**

+27 (0)17 610 4444 (South Africa)  
0861 555 777 RSA-Local only



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### SECTION 2. Hazards identification

#### Classification of the substance or mixture

Classification	South Africa. GHS Classification and Labelling of Chemicals - SANS 10234	
	Skin corrosion	Category 1A

#### Label elements

Pictogram	South Africa. GHS Classification and Labelling of Chemicals - SANS 10234	
		

Signal word	Danger
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Hazard statements	H314: Causes severe skin burns and eye damage.
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#### Precautionary statements

Prevention	P234: Keep only in original container.
	P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P264: Wash hands thoroughly after handling.
	P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.



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<b>Response</b>	<p>P390: Absorb spillage to prevent material damage.</p> <p>P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P310: Immediately call a POISON CENTER or doctor/ physician.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>
<b>Storage</b>	<p>P406: Store in corrosive resistant polypropylene container with a resistant inner liner.</p>
<b>Disposal</b>	<p>P501: Dispose of as hazardous waste in compliance with local and national regulations.</p>
<b>Other hazards</b>	<p>No data available</p>

## SECTION 3. Composition/information on ingredients

### Mixture

**Sodium Hydroxide; Caustic Soda**

**Contents:**  $\geq 47.00$  -  $\leq 51.50$  %W/W

**CAS-No.** 1310-73-2

**Index-No.** 011-002-00-6

**EC-No.** 215-185-5

**Hazard statements** H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4. First aid measures

### Description of necessary first-aid measures

#### Inhalation

Ensure Important Considerations are also applied: See general information above. Remove to fresh air. Get medical attention immediately If breathing has stopped, apply artificial respiration. Do not use mouth to mouth resuscitation. Administer 100% medical Oxygen by facial mask at a feed rate of 12L/min to 15L/min. Keep patient warm and at rest and maintain airway monitor blood pressure and respiration while waiting for medical assistance.

#### Skin contact

Ensure Important Considerations are also applied: See general information above. Immediately shower exposed area with large quantities of water for 5 to 15 minutes or until soapiness is gone Completely remove all contaminated clothing and shoes while in a shower. If burns occur, cover the affected area with sterile, dry, loose-fitting dressing. Get medical attention immediately if irritation persists.

#### Eye contact

Ensure above Important Considerations are also applied. See general information: Speed is essential. Immediately wash the eye(s) with clean water including under the eyelids, for at least 5 to 15 minutes. Take care not to rinse the contaminated water into the unaffected eye. Obtain immediate medical attention. (apply cool packs on eyes while transporting victim to a medical facility).

#### Ingestion

Ensure Important Considerations are also applied: See general information above. If swallowed, DO NOT induce vomiting. If the patient is conscious, give very large amounts of water to



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drink and repeat if vomiting occurs. If vomiting occurs, keep head lower than the hips to help prevent aspiration. Never give anything by mouth to an unconscious person. Maintain airway and respiration and observe/treat as for inhalation. Get medical attention immediately

#### Most important symptoms/effects, acute and delayed

Refer to SECTION 11

#### Treatment

Rewash eyes with physiological solution and assess extent of corneal damage.

## SECTION 5. Firefighting measures

#### Suitable extinguishing media

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

#### Special hazards arising from the substance or mixture

Although non-combustible, this strong base can react with certain metals causing hydrogen generation, which may be explosive mixture Use water spray to cool fire exposed storage containers, until well after fire has been extinguished. Stay away from ends of fire exposed storage tanks. Caustic fumes may accumulate in confined spaces.

#### Special protective equipment for firefighters

An approved positive pressure self-contained breathing apparatus must be worn. Although it will provide little or no thermal protection, chemical protective clothing must be worn when handling this substance.



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### SECTION 6. Accidental release measures

**Personal precautions** Ensure suitable personal protection during removal of spillage. Cordon off the area and deny entry to non-protected persons and the public. Evacuate to an area away from and upwind of the incident, if possible, to higher ground. Always work upwind of any spill. Do not touch or walk through spilled material. Stop leaks if you can do so without risk. Sodium hydroxide mist is heavier than air, it will accumulate in excavations and confine spaces and natural depressions.

**Environmental precautions** Spillage, uncontrolled discharges into watercourses must be reported to the product supplier, DOW and other regulatory bodies -Product supplier, Local Authority, Department of Water Affairs and other appropriate regulatory bodies. Do not allow product/runoff from fire or spillage control to enter sewers, drains or watercourses.

**Methods for cleaning up** Absorb with sand or other non-combustible absorbent material and place into compatible containers for disposal. For a small spillage, allow product to cool and solidify.

**Reference to other sections** Refer to Section 8 and 13

### SECTION 7. Handling and storage

**Safe handling advice** Avoid contact with skin and eyes. Use in well-ventilated areas and keep container closed. When using do not eat, drink or smoke. Always wash hands before after use, before eating, drinking and or smoking. Always wear chemical protective clothing when working with this substance. Avoid generation of



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mist and do not breathe mist and avoid any direct contact with the product. Eye wash fountains and quick drench showers must be provided within the immediate work area for emergency site.

#### Advice on protection against fire and explosion

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from open flames, hot surfaces and sources of ignition.

#### Requirements for storage areas and containers

Store on a corrosion resistant surface (e.g. epoxy coated concrete). Storage facilities needs to be laid out, designed and maintained in accordance with legal requirements, standard practice - S310-1. Store in tightly closed, designated mild steel containers, in a dry area, away from acids. Store separate from common metals (e.g. aluminium or light alloys) and oxidizing agents.

Advice on common storage No data available

## SECTION 8. Exposure controls/personal protection

### Components with workplace control parameters

#### NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
SODIUM HYDROXIDE	STEL	2 mg/m <sup>3</sup>	1995	South Africa RELs

### Exposure controls

#### Engineering measures

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Mechanical ventilation (dilution and or local exhaust) is recommended for all indoor situations.

Eye wash fountains and quick drench showers must be provided within the immediate work area for emergency use.

### Personal protective equipment

#### Respiratory protection

Ventilation and other forms of engineering controls are the preferred means for controlling exposures. Self-contained breathing apparatus (EN 133) Negative pressure canister type respirator masks should be used for escape or short term rescue purposes. Wear full-face self-contained breathing apparatus with positive pressure or airline mask when sodium monoxide fumes are being evolved.

#### Hand protection

Impervious gloves

#### Eye protection

Goggles and a full-face shield must be worn when working with this substance. Wear full-face respiratory protection if there is a possibility of caustic soda fumes being emitted.

#### Skin and body protection

It is recommended that a hooded chemical resistant(plastic) body suit be worn during operations where there is high risk of exposure. SABS approved acid repellent type overall is recommended. Wear acid resistant impervious gloves when handling the product. -they must be of long type which reach to the elbow and are worn underneath the sleeve. Closed acid resistant shoes must be worn when working with small amounts of this substance. Full length chemically resistant boots must be worn when handling this substance. Hard hat with brim

#### Hygiene measures

Wash hands immediately after handling the product. Handle in

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accordance with good industrial hygiene and safety practice.

## SECTION 9. Physical and chemical properties

### Information on basic physical and chemical properties

Form	Viscous
State of matter	Liquid; at 20 ° C; 1,013 hPa
Colour	Clear to slightly turbid, colourless, viscous liquid.
Odour	Odourless
Odour Threshold	No data available
pH	14
Melting point/range	6 - 12 ° C; 101.3 kPa
Boiling point/boiling range	140 ° C
Flash point	Non-flammable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Relative vapour density	No data available
Density	1.5 g/cm <sup>3</sup>
Water solubility	Completely miscible
Partition coefficient: n-octanol/water	log Pow: 0
Viscosity, dynamic	23 mPa.s; 40 ° C

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### SECTION 10. Stability and reactivity

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	No data available
<b>Possibility of hazardous reactions</b>	Violent polymerisation can occur when combined with acetaldehyde, acrolein and acrylonitrile.
<b>Conditions to avoid</b>	Heat
<b>Materials to avoid</b>	Strong oxidizing agents Strong acids. Organic materials.
<b>Hazardous decomposition products</b>	Sodium oxidesContact with metals (aluminum, zinc, tin) and Sodium tetrahydroborate liberates hydrogen gas.

### SECTION 11. Toxicological information

<b>Acute oral toxicity</b>	Sodium Hydroxide; Caustic Soda: LD50 Rabbit: 500 mg/kg; (literature value)
<b>Acute dermal toxicity</b>	No data available
<b>Skin irritation</b>	Sodium Hydroxide; Caustic Soda: Rabbit: Severe skin irritation;
<b>Eye irritation</b>	Sodium Hydroxide; Caustic Soda: Rat: Causes serious eye damage.
<b>Sensitisation</b>	No data available
<b>Repeated dose toxicity</b>	No data available
<b>Carcinogenicity</b>	No data available



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<b>Mutagenicity</b>	No data available  No data available;
<b>Toxicity for reproduction</b>	This information is not available.
<b>Further Information</b>	This information is not available.

## SECTION 12. Ecological information

<b>Toxicity to fish</b>	No data available
<b>Toxicity to daphnia and other aquatic invertebrates</b>	No data available
<b>Toxicity to algae</b>	No data available
<b>Toxicity to bacteria</b>	No data available
<b>Toxicity to fish</b>	No data available
<b>Chronic toxicity in aquatic invertebrates</b>	No data available
<b>Biodegradability</b>	Expected to be biodegradable
<b>Bioaccumulation</b>	Does not bioaccumulate.
<b>Results of PBT and vPvB assessment</b>	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).
<b>Other adverse effects</b>	This product has no known ecotoxicological effects.

## SECTION 13. Disposal considerations

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**Product**

Disposal should be in accordance with local, regional and national legislations.

### SECTION 14. Transport information

**ADR**

**UN number:** 1824

**Class:** 8

**Packaging group:** II; C5;

**Proper shipping name:** SODIUM HYDROXIDE SOLUTION

**RID**

**UN number:** 1824

**Class:** 8

**Packaging group:** II; C5

**Proper shipping name:** SODIUM HYDROXIDE SOLUTION

**ADNR**

**UN number:** 1824

**Class:** 8

**Packaging group:** II; C5

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**Proper shipping name:** SODIUM HYDROXIDE SOLUTION

**IMDG**

**UN number:** 1824

**Class:** 8

**EmS:** F-A, S-B

**Packaging group:** II

**Proper shipping name:** SODIUM HYDROXIDE SOLUTION

**Marine pollutant** Not a Marine Pollutant

**ICAO/IATA**

**UN number :** 1824

**Class:** 8

**Packaging group:** II

**Proper shipping name:** SODIUM HYDROXIDE, SOLUTION

### SECTION 15. Regulatory information

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

**EU list of existing chemical substances**

All chemical constituents are listed in: EU list of existing chemical substances (See chapter 3)

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### USA TSCA Inventory

All chemical constituents are listed in: USA TSCA Inventory  
(See chapter 3)

### Canadian Domestic Substances List (DSL)

All chemical constituents are listed in: Canadian Domestic  
Substances List (DSL) (See chapter 3)

### Australian Inv. of Chem. Substances (AICS)

All chemical constituents are listed in: Australian Inv. of Chem.  
Substances (AICS) (See chapter 3)

### New Zealand Inventory of Chemicals (NZIoC)

All chemical constituents are listed in: New Zealand Inventory of  
Chemicals (NZIoC) (See chapter 3)

### Jap. Inv. of Exist. & New Chemicals (ENCS)

All chemical constituents are listed in: Jap. Inv. of Exist. & New  
Chemicals (ENCS) (See chapter 3)

### Japan. Industrial Safety & Health Law (ISHL)

All chemical constituents are listed in: Japan. Industrial Safety &  
Health Law (ISHL) (See chapter 3)

### Korea. Existing Chemicals Inventory (KECI)

All chemical constituents are listed in: Korea. Existing  
Chemicals Inventory (KECI) (See chapter 3)

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All chemical constituents are listed in: Philippines Inventory of  
Chemicals and Chemical Substances (PICCS) (See chapter 3)

### China Inv. Existing Chemical Substances (IECSC)

All chemical constituents are listed in: China Inv. Existing  
Chemical Substances (IECSC) (See chapter 3)

## SECTION 16. Other information

### Full text of H-Statements

H314 Causes severe skin burns and eye damage.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety

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Every reasonable endeavor has been made to prepare this Safety Data Sheet (SDS) in adherence to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The SDS exclusively furnishes details concerning the health, safety, and environmental risks as of the date of issuance. Its purpose is to aid in the secure reception, utilization, and handling of this product in work environments and does not supplant any product specifications or information.

As Nyundo and its affiliated entities cannot foresee or control all circumstances in which this product may be managed, used, or received in workplaces, it is the responsibility of each user, recipient, or handler to assess this SDS within the particular context in which the product will be received, managed, or used. Users, handlers, or recipients must guarantee that appropriate safety measures are established for health and safety. This does not eliminate the necessity for conducting relevant risk assessments as needed.

Furthermore, it is the responsibility of the recipient, handler, or user to communicate this information to all pertinent parties involved in the reception, use, or handling of this product. While all reasonable efforts have been made to compile this SDS, Nyundo does not explicitly guarantee the accuracy of the information contained herein or assume liability for incomplete data or any advice provided.

The transfer of risk to the purchaser occurs in accordance with the specific terms and conditions of sale when this product is sold.