

## Powafix Caustic Soda

### Section 1. Identification

**GHS product identifier** : Powafix Caustic Soda  
**Chemical name** : Sodium hydroxide (Na(OH))  
**Other means of identification** : None  
**Product type** : Solid

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

Not applicable.

**Supplier's details** : Powafix (PTY) Ltd  
7 Transport Drive  
Prospecton  
Durban  
Tel: 0860 254 620

**Emergency telephone number** : National Poison Centre: 0861 555 777  
Disposal Information: 0860 254 620  
Product Support Line: 072 396 4980

### Section 2. Hazards identification

**Classification of the substance or mixture** : CORROSIVE TO METALS - Category 1  
SKIN CORROSION/IRRITATION - Category 1A  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
AQUATIC TOXICITY (ACUTE) - Category 3

**SANS 10234: 2007 (GHS) label elements**

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Harmful to aquatic life.

**Precautionary statements**

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep only in original container. Avoid release to the environment. Wash hands thoroughly after handling.

## Section 2. Hazards identification

- Response** : Absorb spillage to prevent material damage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 or physician.
- Storage** : Store locked up. Store in corrosive resistant container with a resistant inner liner.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None identified.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Substance
- Chemical name** : Sodium hydroxide (Na(OH))
- Other means of identification** : None.

### CAS number/other identifiers

- CAS number** : 1310-73-2
- EC number** : 215-185-5
- Product code** : Not available.

Ingredient name	%	CAS number
Sodium hydroxide (Na(OH))	100	1310-73-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 4. First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : This material is harmful to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

**Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## Section 7. Handling and storage

**Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be

## Section 7. Handling and storage

hazardous. Do not reuse container. Spillages should be cleaned up promptly to avoid damage to surrounding materials.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Sodium hydroxide (Na(OH))	<b>Occupational Health and Safety Act, 1993 (South Africa)</b> STEL: OEL:RL 2 mg/m <sup>3</sup>

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

#### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Solid. [Flakes.]
Color	: White.
Odor	: Odorless.
Odor threshold	: Not available.
pH	: 14 [Conc. (% w/w): 50%]
Melting point	: 318.3°C (604.9°F)
Boiling point	: 1390°C (2534°F)
Flash point	: Product does not sustain combustion.
Burning time	: Not available.
Burning rate	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Highly flammable in the presence of the following materials or conditions: oxidizing materials and reducing materials. Flammable in the presence of the following materials or conditions: combustible materials and moisture
Lower and upper explosive (flammable) limits	: Not applicable.
Vapor pressure	: 2.4 kPa (18 mm Hg) [20°C]
Vapor density	: Not available.
Relative density	: 2.13
Solubility	: Easily soluble in the following materials: cold water and hot water. Partially soluble in the following materials: methanol. Very slightly soluble in the following materials: diethyl ether Insoluble in the following materials: n-octanol.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not available.

## Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Reactive or incompatible with the following materials: metals
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

No specific data.

#### Irritation/Corrosion

No specific data.

#### Sensitization

No specific data.

#### Mutagenicity

No specific data.

#### Carcinogenicity

No specific data.

#### Reproductive toxicity

No specific data.

#### Teratogenicity

No specific data.

#### Specific target organ toxicity (single exposure)

No specific data.

#### Specific target organ toxicity (repeated exposure)

No specific data.

#### Aspiration hazard

No specific data.

Information on the likely routes of exposure : Ingestion.

### Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Skin contact	: Causes severe burns.
Ingestion	: May cause burns to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

## Section 11. Toxicological information

**Potential immediate effects** : No specific data.

**Potential delayed effects** : No specific data.

### Long term exposure

**Potential immediate effects** : No specific data.

**Potential delayed effects** : No specific data.

### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

No specific data.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Sodium hydroxide (Na(OH))	Acute EC50 40.38 mg/L Fresh water	Daphnia - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
	Acute LC50 33000 to 100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 125000 ug/L Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Chronic NOEC 56 mg/L Marine water	Fish - Poecilia reticulata - Young - 3 to 4 weeks	96 hours

### Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Sodium hydroxide (Na(OH))	-	-	Not readily

### Bioaccumulative potential

No specific data.

### Mobility in soil




**Soil/water partition coefficient ( $K_{oc}$ )** : No specific data.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	SANS 10228:2012	IMDG	IATA
UN number	UN1823	UN1823	UN1823
UN proper shipping name	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	Sodium hydroxide, solid
Transport hazard class(es)	8 	8 	8 
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Special precautions for user	Not available.	Not available.	Not available.
Additional information		<b>Emergency schedules (EmS)</b> F-A, S-B	<b>Passenger and Cargo Aircraft</b> Quantity limitation: 15 kg Packaging instructions: 859 <b>Cargo Aircraft Only</b> Quantity limitation: 50 kg Packaging instructions: 863 <b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 5 kg Packaging instructions: Y844

## Section 15. Regulatory information

**Safety, health and environmental regulations specific for the product** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

## Section 16. Other information

### History

Date of printing	: 05/03/2021
Date of issue/Date of revision	: 05/03/2021
Date of previous issue	: 23/08/2014
Version	: 2
Key to abbreviations	: ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
References	: Supplier Safety Data Sheet. Toxnet.

▀ Indicates information that has changed from previously issued version.

### Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.