



# SAFETY DATA SHEET

Revision Date 24-March-2021

WHMIS - Hazardous Products Regulations (SOR/2015-17)

Revision Number 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product Identifier

**Product Name** Alkaline Reagent

**Product No** 951011

**Pure substance/mixture** Mixture

Contains Sodium hydroxide

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

**Recommended Use** Use as laboratory reagent

**Uses advised against** No Information available

### **Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

### **Manufacturer, Importer, Supplier**

Thermo Fisher Scientific©  
Water and Lab Products  
22 Alpha Road  
Chelmsford, MA 01824, USA  
1-978-232-6000

**E-mail address** [info.water@thermo.com](mailto:info.water@thermo.com)

**Made in** USA

### **Emergency Telephone**

24 Hour Emergency Phone Number  
CHEMTREC®  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: 1-703-527-3887  
(collect calls accepted)

## 2. HAZARDS IDENTIFICATION

### Classification

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

**Skin Corrosion/Irritation**  
**Serious Eye Damage/Eye Irritation**

Category 1  
Category 1

### Label Elements

Contains Sodium hydroxide

**Signal Word**  
Danger

**Hazard Statements**  
Causes severe skin burns and eye damage



### **Precautionary Statements**

#### **Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection

#### **Response**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
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  
Wash contaminated clothing before reuse

#### **Storage**

Store locked up

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant

### Other Information

May be harmful in contact with skin  
Harmful to aquatic life with long lasting effects  
Harmful to aquatic organisms

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component        | CAS-No    | Weight % |
|------------------|-----------|----------|
| Water            | 7732-18-5 | 50 - 60% |
| Sodium hydroxide | 1310-73-2 | 30 - 40% |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### First aid measures

|                                   |                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Advice</b>             | Use first aid treatment according to the nature of the injury. Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.                                                                                                                         |
| <b>Eye Contact</b>                | Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention.                                                                                                                                                                                                                |
| <b>Skin Contact</b>               | Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult a physician.                                                                                                                    |
| <b>Inhalation</b>                 | Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.                                                                                                                                                                                                |
| <b>Ingestion</b>                  | Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately.                                                                                                                                                          |
| <b>Protection of First-aiders</b> | Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |

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

**Most important symptoms/effects** No information available

##### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable Extinguishing Media

No information available

##### Specific Hazards Arising from the Chemical

No information available.

##### Explosion Data

**Sensitivity to Mechanical Impact** None

**Sensitivity to Static Discharge** None

##### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal Precautions, Protective Equipment and Emergency Procedures

**Personal Precautions** Use personal protective equipment as required. For further specification, refer to section 8 of the SDS. Evacuate personnel to safe areas.

**Environmental Precautions** Vapors may accumulate to form explosive concentrations.

#### **Methods and Material for Containment and Cleaning Up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### **7. HANDLING AND STORAGE**

#### **Precautions for Safe Handling**

**Handling** To avoid risks to human health and the environment, comply with the instructions for use  
Wear personal protective equipment/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Ensure adequate ventilation, especially in confined areas

#### **Conditions for Safe Storage, Including any Incompatibilities**

**Storage** Keep container tightly closed in a dry and well-ventilated place  
Store at room temperature in the original container  
Protect from direct sunlight

**Incompatible Products** No information available

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Exposure Guidelines**

| Component        | Alberta                      | British Columbia             | Ontario TWAEV            | Quebec                       | ACGIH TLV                    | OSHA PEL                                                              | NIOSH IDLH                                                 |
|------------------|------------------------------|------------------------------|--------------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------|
| Sodium hydroxide | Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> | CEV: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> | (Vacated)<br>Ceiling: 2 mg/m <sup>3</sup><br>TWA: 2 mg/m <sup>3</sup> | IDLH: 10 mg/m <sup>3</sup><br>Ceiling: 2 mg/m <sup>3</sup> |

#### **Legend**

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits

NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health IDLH - Immediately Dangerous to Life or Health

#### **Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

#### **Individual protection measures, such as personal protective equipment**

**Eye/face Protection** Wear chemical splash goggles and face shield. If splashes are likely to occur: Face protection shield.

**Skin and Body Protection** Wear protective gloves/protective clothing.

**Respiratory Protection** None under normal use conditions. In case of inadequate ventilation wear respiratory protection.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical State | Liquid                   |
| Appearance     | Colorless                |
| Odor           | None                     |
| Odor Threshold | No information available |
| pH             | 14                       |
| PH Range       | No information available |

| <u>Property</u>              | <u>Values</u>            | <u>Remarks • Method</u> |
|------------------------------|--------------------------|-------------------------|
| Melting point/freezing point | No information available |                         |
| Boiling Point/Range          | ~ 100 °C / 212 °F        |                         |
| Flash Point (High in °C)     | N/A                      |                         |
| Evaporation Rate             | No information available |                         |
| Flammability (solid, gas)    | No information available |                         |
| Flammability Limit in Air    |                          |                         |
| Upper flammability limit:    | No information available |                         |
| Lower flammability limit:    | No information available |                         |
| Vapor pressure               | No information available |                         |
| Vapor Density                | No information available |                         |
| Specific Gravity             | No information available |                         |
| Water Solubility             | Soluble                  |                         |
| Solubility in other solvents | No information available |                         |
| Partition coefficient        | No information available |                         |
| Autoignition Temperature     | -                        |                         |
| Decomposition Temperature    | No information available |                         |
| Kinematic viscosity          | No information available |                         |
| Dynamic viscosity            | No information available |                         |
| Explosive Properties         | No information available |                         |
| Oxidizing Properties         | No information available |                         |

### Other Information

|                  |                          |
|------------------|--------------------------|
| Softening Point  | No information available |
| Molecular Weight | No information available |
| VOC Content(%)   | No information available |
| Density          | No Information available |
| Bulk Density     | No information available |

## 10. STABILITY AND REACTIVITY

### Reactivity

No Information available

### Chemical Stability

Stable under normal conditions

### Possibility of Hazardous Reactions

None under normal processing

### Conditions to Avoid

Extremes of temperature and direct sunlight.

### Incompatible Materials

No information available

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

|              |                          |
|--------------|--------------------------|
| Inhalation   | No information available |
| Eye Contact  | No information available |
| Skin Contact | No information available |
| Ingestion    | No information available |

| Component                     | LD50 Oral                | LD50 Dermal                  | LC50 Inhalation |
|-------------------------------|--------------------------|------------------------------|-----------------|
| Water<br>7732-18-5            | LD50 > 90 mL/kg ( Rat )  | -                            | -               |
| Sodium hydroxide<br>1310-73-2 | LD50 = 325 mg/kg ( Rat ) | LD50 = 1350 mg/kg ( Rabbit ) | -               |

### Information on Toxicological Effects

Symptoms No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available

Mutagenic Effects No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component        | CAS-No    | IARC       | NTP        | ACGIH      | OSHA       |
|------------------|-----------|------------|------------|------------|------------|
| Water            | 7732-18-5 | Not listed | Not listed | Not listed | Not listed |
| Sodium hydroxide | 1310-73-2 | Not listed | Not listed | Not listed | Not listed |

Reproductive Effects No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Aspiration hazard No information available

### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

|                 |            |
|-----------------|------------|
| ATEmix (oral)   | 812 mg/kg  |
| ATEmix (dermal) | 3375 mg/kg |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component                     | Freshwater Algae | Freshwater Fish                                        | Water Flea |
|-------------------------------|------------------|--------------------------------------------------------|------------|
| Sodium hydroxide<br>1310-73-2 | -                | LC50: = 45.4 mg/L, 96h static<br>(Oncorhynchus mykiss) | -          |

**Persistence and Degradability**

No information available

**Bioaccumulation/ Accumulation**

No information available

**Mobility**

No information available

**Other adverse effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste Disposal Methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Improper disposal or reuse of this container may be dangerous and illegal

| Component                     | CAWAST             |
|-------------------------------|--------------------|
| Sodium hydroxide<br>1310-73-2 | Toxic<br>Corrosive |

### 14. TRANSPORT INFORMATION

**TDG**

|                      |                                          |
|----------------------|------------------------------------------|
| UN-No                | UN1824                                   |
| Proper Shipping Name | SODIUM HYDROXIDE SOLUTION                |
| Hazard Class         | 8                                        |
| Packing Group        | II                                       |
| Description          | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II |

**DOT**

|                                 |                                          |
|---------------------------------|------------------------------------------|
| UN-No                           | UN1824                                   |
| Proper Shipping Name            | SODIUM HYDROXIDE SOLUTION                |
| Hazard Class                    | 8                                        |
| Packing Group                   | II                                       |
| Reportable Quantity (RQ):       | (Sodium Hydroxide : RQ (kg)= 454.00)     |
| Special Provisions              | B2, IB2, N34, T7, TP2                    |
| Shipping Description            | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II |
| Emergency Response Guide Number | 154                                      |

**IATA**

|                      |                                          |
|----------------------|------------------------------------------|
| UN-No                | UN1824                                   |
| Proper Shipping Name | SODIUM HYDROXIDE SOLUTION                |
| Hazard Class         | 8                                        |
| Packing Group        | II                                       |
| ERG Code             | 8L                                       |
| Special Provisions   | A3, A803                                 |
| Description          | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II |

**IMDG/IMO**

|                      |                           |
|----------------------|---------------------------|
| UN-No                | UN1824                    |
| Proper Shipping Name | SODIUM HYDROXIDE SOLUTION |
| Hazard Class         | 8                         |

|                      |                                          |
|----------------------|------------------------------------------|
| <b>Packing Group</b> | II                                       |
| <b>EmS No.</b>       | F-A, S-B                                 |
| <b>Description</b>   | UN1824, SODIUM HYDROXIDE SOLUTION, 8, II |

## 15. REGULATORY INFORMATION

### International Inventories

|                                           |          |
|-------------------------------------------|----------|
| <b>CANINV</b>                             | Complies |
| <b>United States of America Inventory</b> | Complies |
| <b>EINECS/ELINCS</b>                      | Complies |
| <b>ENCS</b>                               | Complies |
| <b>IECSC</b>                              | Complies |
| <b>KECL</b>                               | Complies |
| <b>PICCS</b>                              | Complies |
| <b>AICS</b>                               | Complies |

### Legend:

**CANINV/ DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**USINV/ TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japanese Existing and New Chemical Substances  
**IECSC** - Chinese Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. OTHER INFORMATION

|                            |                                |
|----------------------------|--------------------------------|
| <b>Prepared By</b>         | Regulatory Affairs             |
| <b>Prepared For</b>        | Thermo Fisher Scientific Inc.© |
| <b>Issue Date</b>          | No information available       |
| <b>Revision Date</b>       | 24-March-2021                  |
| <b>Reason for revision</b> | SDS sections updated.          |

### Disclaimer

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**End of Safety Data Sheet**