

# SAFETY DATA SHEET

Creation Date 14-Dec-2010

Revision Date 19-Dec-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** Potassium hydroxide, 8N solution in water

**Cat No. :** AC380620000; AC380620020; AC380620100; AC380625000

**Synonyms** No information available

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

|  |              |
|--|--------------|
| Corrosive to metals                              | Category 1   |
| Acute oral toxicity                              | Category 4   |
| Skin Corrosion/Irritation                        | Category 1 A |
| Serious Eye Damage/Eye Irritation                | Category 1   |
| Specific target organ toxicity (single exposure) | Category 3   |
| Target Organs - Respiratory system.              |              |

### Label Elements

#### **Signal Word**

Danger

#### **Hazard Statements**

May be corrosive to metals

Harmful if swallowed  
 Causes severe skin burns and eye damage  
 May cause respiratory irritation



### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Keep only in original packaging

#### Response

Immediately call a POISON CENTER or doctor

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
 Take off contaminated clothing and wash before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### Ingestion

Rinse mouth  
 Do NOT induce vomiting

#### Spills

Absorb spillage to prevent material damage

#### Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed  
 Store in corrosive resistant polypropylene container with a resistant inliner  
 Store in a dry place

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

None identified

#### Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

### 3. Composition/information on Ingredients

| Component           | CAS No    | Weight % |
|---------------------|-----------|----------|
| Water               | 7732-18-5 | 50-70    |
| Potassium hydroxide | 1310-58-3 | 30-50    |

### 4. First-aid measures

#### General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

|  |  |
|--|--|
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.  |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.  |
| <b>Inhalation</b>                          | If not breathing, give artificial respiration. Remove from exposure, lie down. 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. Call a physician immediately. |
| <b>Ingestion</b>                           | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.   |
| <b>Most important symptoms and effects</b> | Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation                                |
| <b>Notes to Physician</b>                  | Treat symptomatically  |

## 5. Fire-fighting measures

|   |   |
|---|---|
| <b>Suitable Extinguishing Media</b>     | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. |
| <b>Unsuitable Extinguishing Media</b>   | No information available  |
| <b>Flash Point</b>                      | No information available  |
| <b>Method -</b>                         | No information available  |
| <b>Autoignition Temperature</b>         | No information available  |
| <b>Explosion Limits</b>                 |   |
| <b>Upper</b>                            | No data available   |
| <b>Lower</b>                            | No data available   |
| <b>Sensitivity to Mechanical Impact</b> | No information available  |
| <b>Sensitivity to Static Discharge</b>  | No information available  |

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

### Hazardous Combustion Products

Hydrogen.

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

### NFPA

|                    |                          |                         |                                |
|--------------------|--------------------------|-------------------------|--------------------------------|
| <b>Health</b><br>3 | <b>Flammability</b><br>0 | <b>Instability</b><br>0 | <b>Physical hazards</b><br>N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

## 6. Accidental release measures

|                                  |   |
|----------------------------------|---|
| <b>Personal Precautions</b>      | Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| <b>Environmental Precautions</b> | Should not be released into the environment. Do not flush into surface water or sanitary sewer system.  |

**Methods for Containment and Clean Up** Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

## 7. Handling and Storage

**Handling** Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

**Storage.** Corrosives area. Do not store in metal containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Acids. Halogens. Acid anhydrides. Metals.

## 8. Exposure controls / personal protection

### Exposure Guidelines

| Component           | ACGIH TLV                    | OSHA PEL                               | NIOSH                        | Mexico OEL (TWA)             |
|---------------------|------------------------------|--|------------------------------|------------------------------|
| Potassium hydroxide | Ceiling: 2 mg/m <sup>3</sup> | (Vacated) Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> |

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Inorganic gases and vapours filter. Type B. Grey. or. Particulates filter conforming to EN 143.

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

## 9. Physical and chemical properties

### Appearance

**Physical State**

**Color**

**Odor**

**Odor Threshold**

**Property**

**Melting Point/Range**

**Softening Point**

**Boiling Point/Range**

**Flash Point**

Liquid

Colorless

Odorless

No information available

**Values**

No data available

No data available

No information available

No information available

**Remarks**

**• Method**

**Method -** No information available

|  |                          |             |
|--|--------------------------|-------------|
| <b>Flammability (liquid)</b>                   | No data available        |             |
| <b>Flammability (solid,gas)</b>                | Not applicable           | Liquid      |
| <b>Explosion Limits</b>                        | No data available        |             |
| <b>Autoignition Temperature</b>                | No data available        |             |
| <b>Decomposition Temperature</b>               | No data available        |             |
| <b>pH</b>                                      | 14                       |             |
| <b>Viscosity</b>                               | No data available        |             |
| <b>Water Solubility</b>                        | Soluble                  |             |
| <b>Solubility in other solvents</b>            | No information available |             |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |             |
| <b>Component</b>                               | <b>log Pow</b>           |             |
| Potassium hydroxide                            | 0.83                     |             |
| <b>Vapor Pressure</b>                          | No data available        |             |
| <b>Density / Specific Gravity</b>              | 1.326                    |             |
| <b>Bulk Density</b>                            | Not applicable           | Liquid      |
| <b>Vapor Density</b>                           | No data available        | (Air = 1.0) |
| <b>Particle characteristics</b>                | (liquid) Not applicable  |             |

Other Information

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactive Hazard</b>                  | None known, based on information available |
| <b>Stability</b>                        | Stable under normal conditions.            |
| <b>Conditions to Avoid</b>              | Incompatible products.                     |
| <b>Incompatible Materials</b>           | Acids, Halogens, Acid anhydrides, Metals   |
| <b>Hazardous Decomposition Products</b> | Hydrogen                                   |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.   |
| <b>Hazardous Reactions</b>              | None under normal processing.              |

## 11. Toxicological information

Information on expected route of exposure

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Not an expected route of exposure.  |
| <b>Ingestion</b>  | May be harmful if swallowed.  |
| <b>Eyes</b>       | Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. |
| <b>Skin</b>       | Avoid contact with skin. Causes burns. Skin Corrosion/Irritation.                               |

Toxicology data for the components

| Component           | LD50 Oral                  | LD50 Dermal | LC50 Inhalation |
|---------------------|----------------------------|-------------|-----------------|
| Water               | -                          | -           | -               |
| Potassium hydroxide | LD50 = 333-384 mg/kg (Rat) | -           | -               |

|   |                          |
|---|--------------------------|
| <b>Toxicologically Synergistic Products</b> | No information available |
| <b>(b) skin corrosion/irritation;</b>       | Category 1 A             |

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory No data available  
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity;

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

| Component           | CAS No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|---------------------|-----------|------------|------------|------------|------------|------------|
| Water               | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Potassium hydroxide | 1310-58-3 | Not listed | Not listed | Not listed | Not listed | Not listed |

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Do not allow material to contaminate ground water system. Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

| Component           | Freshwater Algae | Freshwater Fish          | Microtox   | Water Flea |
|---------------------|------------------|--------------------------|------------|------------|
| Potassium hydroxide | Not listed       | LC50 = 50-165 mg/L (96h) | Not listed | Not listed |

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Will likely be mobile in the environment due to its water solubility.

| Component           | log Pow |
|---------------------|---------|
| Potassium hydroxide | 0.83    |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and

national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

### DOT

UN-No UN1814  
 Proper Shipping Name POTASSIUM HYDROXIDE, SOLUTION  
 Hazard Class 8  
 Packing Group II

### TDG

UN-No UN1814  
 Proper Shipping Name POTASSIUM HYDROXIDE SOLUTION  
 Hazard Class 8  
 Packing Group II

### IATA

UN-No UN1814  
 Proper Shipping Name POTASSIUM HYDROXIDE SOLUTION  
 Hazard Class 8  
 Packing Group II

### IMDG/IMO

UN-No UN1814  
 Proper Shipping Name POTASSIUM HYDROXIDE SOLUTION  
 Hazard Class 8  
 Packing Group II

## 15. Regulatory Information

### United States of America Inventory

| Component           | CAS No    | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---------------------|-----------|------|---|-----------------------------|
| Water               | 7732-18-5 | X    | ACTIVE  | -                           |
| Potassium hydroxide | 1310-58-3 | X    | ACTIVE  | -                           |

#### Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component           | CAS No    | DSL | NDSL | EINECS    | PICCS | ENCS | ISHL | AICS | IECSC | KECL     |
|---------------------|-----------|-----|------|-----------|-------|------|------|------|-------|----------|
| Water               | 7732-18-5 | X   | -    | 231-791-2 | X     | X    |      | X    | X     | KE-35400 |
| Potassium hydroxide | 1310-58-3 | X   | -    | 215-181-3 | X     | X    | X    | X    | X     | KE-29139 |

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### U.S. Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

| Component           | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|---------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Potassium hydroxide | X                          | 1000 lb                     | -                      | -                         |

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

| Component           | Hazardous Substances RQs | CERCLA Extremely Hazardous Substances RQs | SARA Reportable Quantity (RQ) |
|---------------------|--------------------------|---|-------------------------------|
| Potassium hydroxide | 1000 lb                  | -   | 1000 lb<br>454 kg             |

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component           | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------------|---------------|------------|--------------|----------|--------------|
| Water               | -             | -          | X            | -        | -            |
| Potassium hydroxide | X             | X          | X            | -        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

| Component           | CAS No    | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---------------------|-----------|---|---|---|
| Water               | 7732-18-5 | -   | -   | -   |
| Potassium hydroxide | 1310-58-3 | -   | Use restricted. See entry 75.<br>(see link for restriction details)           | -   |

**REACH links**

<https://echa.europa.eu/substances-restricted-under-reach>

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

| Component           | CAS No    | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---------------------|-----------|----------|------------------------------|---------------------------|--|
| Water               | 7732-18-5 | Listed   | Not applicable               | Not applicable            | Not applicable                             |
| Potassium hydroxide | 1310-58-3 | Listed   | Not applicable               | Not applicable            | Not applicable                             |

#### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

#### Other International Regulations

| Component           | CAS No    | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---------------------|-----------|---|--|----------------------------|------------------------------------|
| Water               | 7732-18-5 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |
| Potassium hydroxide | 1310-58-3 | Not applicable  | Not applicable   | Not applicable             | Annex I - Y35                      |

## 16. Other Information

|                         |   |
|-------------------------|---|
| <b>Prepared By</b>      | Product stewardship (Regulatory Affairs)<br>Thermo Fisher Scientific<br>email - begel.sdsdesk@thermofisher.com  |
| <b>Creation Date</b>    | 14-Dec-2010   |
| <b>Revision Date</b>    | 19-Dec-2025   |
| <b>Print Date</b>       | 19-Dec-2025   |
| <b>Revision Summary</b> | Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024. |

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**