

Section 1: Product & Company Information

Product Identifier: Sodium Hydroxide, 0.5N

Other Means of Identification

Product Number: 100019

Recommended Use and Restrictions on Use

Recommended Use: General Laboratory Reagent.

Restrictions on Use: No data available.

Manufacturer / Importer / Supplier / Distributor Information

Company Name: CORECHEM Inc.

Address: 4320 Greenway Drive
Knoxville, TN 37918 USA

Information Telephone Number: 1-865-524-4239

Fax Number: 1-865-524-3375

Website: www.corecheminc.com

Contact Person: Regulatory Manager

E-mail: regulatory@corecheminc.com

Emergency Phone Number: Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

GHS Hazard Classification(s)

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

Physical Hazard(s)

Corrosive to Metals - 1

Health Hazard(s)

Corrosion/Irritation, Skin - 2

(Corrosion) Damage/Irritation, Eye -
2A

Environmental Hazard(s)

Not classified.

Label Elements

Signal Word

WARNING

Hazard Symbol(s)



Hazard Statement(s)

H290: May be corrosive to metals.

H315: Causes skin Irritation.

H319: Causes serious eye Irritation.

Precautionary Statements

General

Not applicable.

Prevention

P234: Keep only in original container.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash face, hands and any exposed skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. 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.

P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.

P310: Immediately call a POISON CENTER or doctor/physician.

P321: Specific treatment (see supplemental first aid instructions on this label).

P363: Wash contaminated clothing before reuse.

P390: Absorb spillage to prevent material damage.

Storage

P405: Store locked up.

P406: Store in corrosive resistant container with a resistant inner liner.

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3: Composition/Information on Ingredients

Substance

Chemical Identity ²	Common Name/Synonym(s)	CAS # ³	Weight %	Impurity or Stabilizing Additive
Water		7732-18-5	98%	-
Sodium Hydroxide		1310-73-2	2%	-

1. Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.

2. Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.

3. "—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

Section 4: First-Aid Measures

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact

Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, redness, and pain.

Eye Contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately. In case of irritation from airborne exposure, move to fresh air. Get medical attention immediately.

Ingestion

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Most important symptoms/effects, acute and delayed

Symptoms

Irritating to eyes and skin. Gastric or intestinal disorders when ingested. Nausea in case of ingestion.

Indication of immediate medical attention and special treatment needed

Hazards

No data available.

Treatment

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately).

Section 5: Fire-Fighting Measures

General Fire Hazards

In case of fire and/or explosion do not breathe fumes. Use water spray to keep fire-exposed containers cool. Move containers from fire area if you can do so without risk. Water may be ineffective in fighting the fire. Fight fire from a protected location.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media

The product is not flammable. Use fire-fighting measures that suit the environment.

Unsuitable Extinguishing Media

No data available.

Specific Hazards Arising from the Chemical

Formation of toxic gases is possible during heating or in case of fire.

Special Protective Equipment and Precautions for Firefighters

Special Fire-Fighting Equipment Procedures

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special Protective Equipment for Fire-Fighters

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

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Particular danger of slipping on leaked/spilled product. For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Methods and Materials for Containment and Clean-Up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable receptacles.

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Inform respective authorities in case of seepage into water course or sewage system.

Section 7: Handling and Storage

Precautions for Safe Handling

Prevent formation of aerosols. Avoid splashes or spray in enclosed areas. Use only in well ventilated areas. Information about protection against explosions and fires: No special measures required.

Conditions for Safe Storage, including any Incompatibilities

Requirements to be met by storerooms and receptacles: Use only receptacles specifically permitted for this substance/product. Unsuitable material for receptacle: aluminum. Unsuitable material for receptacle: steel. Unsuitable material for receptacle: glass or ceramic.

Information about storage in one common storage facility: Store away from foodstuffs. Do not store together with acids. Store away from oxidizing agents. Store away from metals. Store in cool, dry conditions in well sealed receptacles. Keep containers tightly sealed.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Value	Source
Sodium Hydroxide	TWA	2 mg/m ³	US OSHA Table Z-1
Sodium Hydroxide	TLV-Ceiling	2 mg/m ³	US. ACGIH Threshold Limit Values

Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

Appropriate Engineering Controls

No specific controls are needed. Normal room ventilation is adequate.

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

General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin Protection

Hand Protection

Material of gloves, Nitrile rubber, NBR Neoprene gloves, Butyl rubber, BR Natural rubber, NR
Sensibilization by the components in the glove materials is possible.

Other

Wear appropriate chemical resistant clothing.

Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact safety professional or manufacturer for specific information.

Hygiene Measures

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing & PPE to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance:

Physical State: Liquid.

Color: Colorless.

Odor: No data available.

Odor Threshold: No data available.

pH: >12

Melting Point/Freezing Point: 0 °C / 32 °F

Initial Boiling Point and Boiling 100 °C / 212 °F

Range:

Flash Point: No data available.

Evaporation Rate (butyl acetate=1): No data available.

Flammability (solid, gas): No data available.

Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: No data available.

Flammability Limit – Lower: No data available.

Explosive Limit – Upper: Not applicable.

Explosive Limit – Lower: Not applicable.

Vapor Pressure: No data available.

Vapor Density (air =1): No data available.

Relative Density (water=1): 1 – 1.2

Solubility(ies):

Solubility in water: Miscible.

Solubility (other): No data available.

Partition coefficient

(n-octanol/water):

Auto-Ignition Temperature: No data available.

Decomposition Temperature: No data available.

Viscosity: No data available.

Other Information:

Molecular Weight: No data available.

Formula: No data available.

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical Stability

Material is stable under normal conditions. Keep only in original container.

Possibility of Hazardous Reactions

Exothermic reaction with acids. Corrosive action on metals. Attacks materials containing glass and silicate. Toxic fumes may be released if heated above the decomposition point.

Conditions to Avoid

Avoid acids.

Incompatible Materials

Strong acids.

Hazardous Products

Possible in traces.

Decomposition

Section 11: Toxicological Information

Information on routes of exposure

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: Irritant to skin and mucous membranes.

Eye Contact: Causes serious eye irritation.

Information on Toxicological Effects

Acute Toxicity (List all possible routes of exposure)

Oral

LD50: 2,000 mg/kg (rat)

Dermal

No data available.

Inhalation

No data available.

Repeated Dose Toxicity

No data available.

Skin Corrosion/Irritation

Causes severe skin burns and eye damage.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory/Skin Sensitization

Not applicable.

Carcinogenicity

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

US. National Toxicology Program (NTP) Report on Carcinogens

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ Cell Mutagenicity

In Vitro

Not applicable.

In Vivo

Not applicable.

Reproductive Toxicity

None known.

Specific Target Organ Toxicity - Single Exposure

Causes damage to organs.

Specific Target Organ Toxicity - Repeated Exposure

None known.

Aspiration Hazard

Not classified.

Other Effects

None known.

Section 12: Ecological Information

Ecotoxicity**Acute Hazards to the Aquatic Environment****Fish**

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Chronic Hazards to the Aquatic Environment**Fish**

No data available.

Aquatic Invertebrates

No data available.

Toxicity to Aquatic Plants

No data available.

Persistence and Degradability**Biodegradation**

There are no data on the degradability of this product.

BOD/COD Ratio

No data available.

Bioaccumulative Potential**Bioconcentration Factor (BCF)**

No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

Section 13: Disposal Considerations

Disposal Instructions

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

Contaminated Packaging

Handle contaminated packages in the same way as the substance itself. Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

Section 14: Transportation Information

US Department of Transportation (DOT)

UN Number: UN 1824
UN Proper Shipping Name: Sodium Hydroxide Solution
Technical Name:
Hazard Class: 8
Subsidiary Hazard Risk: -
Packing Group: III
DOT Label/Placard Exemptions: Not determined
Special Provisions: IB3, N34, T4, TP1
Packaging Exceptions: 49CFR 173.154
Packaging Non-Bulk: 49CFR 173.203
Packaging Bulk: 49CFR 173.241
Reportable Quantity (RQ): 1,000lb (454kg)
Marine Pollutant: No
Poison Inhalation Hazard: No
Special precautions for user: Transport within the user's premises: always transport in closed containers that are upright and secure.
Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Emergency Response Guidebook (ERG) #: 154

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

Section 15: Regulatory Information

US Federal Regulations

Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)

No chemical(s) in this material are subject to the reporting requirements of CERCLA.

Clean Air Act (CAA), Section 112(r)

No chemical(s) in this material are subject to the reporting requirements of CAA.

Emergency Planning and Community Right-To-Know Act (EPCRA)

EPCRA 302 Extremely Hazardous Substance

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA 304 Emergency Response Notification

No chemical(s) in this material are subject to the reporting requirements of SARA Title III, Section 304.

EPCRA 311/312 Emergency and Hazardous Materials Reporting

Fire Hazard: No
Sudden Release of Pressure: No
Reactive: No
Acute (Immediate) Health Hazard: Yes
Chronic (Delayed) Health Hazard: No

EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

This material does not contain any chemical(s) with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.

Section 16: Other Information

Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 2

Chronic Health Hazard: /

Flammability: 0

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

National Fire Protection Association (NFPA 704) Rating

Health Hazard: 2

Fire Hazard: 0

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Key to Abbreviations and

Acronyms

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

EC50 - Effective concentration, 50%

IDHL - Immediately Dangerous to Life and Health

Kg - Kilogram

l - Liter

lb - Pound

LC50 - Lethal Concentration, 50%

LD50 - Lethal Dose, 50%

mg - milligram

ml - milliliter

N/A - Not Applicable

N/D - Not Determined

PEL - Permissible Exposure Limit

REL - Recommended Exposure Limit

STEL - Short-term Exposure Limit

TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists

AIHA - American Industrial Hygiene Association

BEI - Biological Exposure Indices

CAS - Chemical Abstracts Service

DOT - US Department of Transportation

EPA - US Environmental Protection Agency

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - Intermediate Bulk Container

IMDG - International Maritime Dangerous Goods

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - US Occupational Health and Safety Administration

SARA - US EPA Superfund Amendments and Reauthorization Act

TSCA - US EPA Toxic Substances Control Act

UN - United Nations

References

HSDB® - Hazardous Substances Data Bank

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