



1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name: Alkaline Pretreatment Solution
Product Number: PN002571
UN-Number: UN1814

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

Identified uses: Laboratory reagent

1.3 Details of the supplier of the safety data sheet

Company: Associates of Cape Cod, Inc.
124 Bernard E St Jean Drive
East Falmouth, MA 02536
USA
Telephone: +1 888-395-2221
+1 508-540-3444

1.4 Emergency telephone number

Emergency Phone #: CHEMTEL: +1-800-704-9215 (NORTH AMERICA)
+1-360-256-7365 (INTERNATIONAL)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statements

- Causes severe skin burns and eye damage.
- Appearance: Colorless
- Physical State: Liquid
- Odor: None

Precautionary Statements:

- Do not breathe fume/gas/mist/vapors/spray.



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

General Advice

- Immediately call a POISON CENTER or doctor/physician.
- Specific treatment (see supplemental instructions on the administration of antidotes on this label)

Eyes

- 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 doctor/physician.

Skin

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

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Storage

- Store locked up.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Not applicable.

Other Information: 0% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Formula: KOH

Molecular Weight: 56.1 g/mol

CAS-No.: 1310-58-3

Component	Classification	Concentration
Potassium hydroxide	Skin Corrosion/Irritation - Category 1, Serious Eye Damage/Eye Irritation - Category 1	>=0.5 - <1 weight %*

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice



Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye open while rinsing. Call a physician immediately.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Contaminated work clothing should not be allowed out of the workplace. Get medical attention immediately if symptoms occur.

Inhalation

Move to fresh air. Get medical attention immediately if symptoms occur. Administer oxygen if breathing is difficult and you are trained. If breathing is irregular or stopped, administer artificial respiration.

Ingestion

Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Protection of First-aiders

Do NOT use mouth-to-mouth if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

4.2 Most important symptoms and effects, both acute and delayed

Burning, red eyes, tearing, impairment of vision, difficulty breathing.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

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

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

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

5.4 Further information

Explosion Data

Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.



6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection, see section 8.

6.2 Environmental precautions

Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3 Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

6.4 Reference to other sections

For disposal, see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Do not breathe vapors or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products: Acids, Alcohols, Aldehydes, Ketones

7.3 Specific end use(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

- Showers
- Eyewash stations
- Ventilation systems



Personal protective equipment

Eye/Face Protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles. If splashes are likely to occur, wear Face-shield.

Skin

Wash and dry hands.

Impervious gloves. Impervious clothing. Chemical resistant apron.

If used in solution, or mixed with other substances, and under conditions that differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance:	Colorless Form: Liquid
b)	Odor:	None
c)	Odor Threshold:	No information available
d)	pH:	12.7
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available



k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	No data available
n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

None known based on information supplied.

10.5 Incompatible materials

Acids. Alcohols. Aldehydes. Ketones

10.6 Hazardous decomposition products

None known based on information supplied.

10.7 Hazardous Polymerization

Hazardous polymerization does not occur.

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity. The following values are calculated based on chapter 3.1 of the GHS document: LD50 Oral, 52001 mg/kg; acute toxicity estimate.

Inhalation: There is no data available for this product. Vapors may irritate throat and respiratory system. Inhaled corrosive substances can lead to a toxic edema of the lungs.



Dermal: There is no data available for this product. May cause serious skin burns or irritation based on the pH.

Ingestion: There is no data available for this product. Ingestion of corrosive substances can cause burns of the upper digestive and respiratory tract.

Serious eye damage/eye irritation

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

Contains no ingredients above reportable quantities listed as a carcinogen.

Reproductive toxicity

No information available.

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Aspiration hazard

No information available.

Additional Information

RTECS:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

The environmental impact of this product has not been fully investigated.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

Chemical Name	Log Pow
Potassium hydroxide	0.83

12.4 Mobility in soil- No information available.

12.5 Results of PBT and vPvB assessment- No information available.

12.6 Other adverse effects

No information available.



13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR261).

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Do not re-use empty containers

US EPA Waste Number

D002

14. TRANSPORT INFORMATION

DOT (US)

Un-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Description:	UN1814, Potassium hydroxide solution, 8, III
Emergency Response Guide Number:	154

TDG

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide, solution
Hazard Class:	8
Packaging Group:	III
Description:	UN1814, Potassium hydroxide, solution, 8, III

MEX

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Description:	UN1814, Potassium hydroxide solution, 8, III

ICAO

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Description:	UN1814, Potassium hydroxide solution, 8, III

IATA

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
ERG Code:	8L
Description:	UN1814, Potassium hydroxide solution, 8, III

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IMDG/IMO

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
EmS No.	F-A, S-B
Description:	UN1814, Potassium hydroxide solution, 8, III

RID

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Classification Code:	C5
Description:	UN1814, Potassium hydroxide solution, 8, III

ADR

UN-Number:	UN1814
Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Classification Code:	C5
Tunnel Restriction Code:	(E)
Description:	UN1814, Potassium hydroxide solution, 8, III, (E)

ADN

Proper Shipping Name:	Potassium hydroxide solution
Hazard Class:	8
Packing Group:	III
Classification Code:	C5
Description:	UN1814, Potassium hydroxide solution, 8, III
Limited Quantity:	5 L

15. REGULATORY INFORMATION

International Inventories

TSCA:	Complies
DSL:	Complies
IECSC:	

Legend

TSCA:	United States Toxic Substance Control Act Section 8(b) inventory
DSL/NDSL:	Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

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

REACH No. :

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SARA 302 Components

SARA 313 Components

SARA 311/312 Hazards

Acute Health Hazard: Yes
 Chronic Health Hazard: No
 Fire Hazard: No
 Sudden Release of Pressure Hazard: No
 Reactive Hazard: No

Clean Water Act

This product contains the following substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA-Reportable Quantities	CWA-Toxic Pollutants	CWA-Priority Pollutants	CWA-Hazardous Substances
Potassium Hydroxide	1000 lb			X

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):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Potassium Hydroxide	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number: Not Applicable

16. OTHER INFORMATION

HMIS Rating

Health hazard: 3
 Flammability: 0
 Physical Hazard: 0

NFPA Rating

Health hazard: 3
 Fire Hazard: 0
 Reactivity Hazard:
 Instability: 0

Further information

Associates of Cape Cod, Inc. (ACC). All rights reserved. The above information is believed to be current and accurate; however, ACC makes no warranty of any type with respect to such information and assumes no

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liability for any loss or injury that may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information for their intended use.

Preparation Information

Associates of Cape Cod, Inc.

Version: 04

SDS *Alkaline Pretreatment Solution*