

# Safety Data Sheet

Product Trade Name: **CHEM ALUM ETCH 400**

ID: H299

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

Product Trade Name: **CHEM ALUM ETCH 400**

Manufacturer Information

**Heatbath Corporation**  
P.O. Box 51048  
Indian Orchard, MA 01151-5048

Contact Phone: (413) 452-2000  
8:00 AM - 5:00 PM

CHEMTREC Emergency Phone: (800) 424-9300  
24 Hours

CHEMTREC International: (703) 527-3887

**Recommended Use:** Alkaline aluminum etchant

**Restrictions on Use:** See Incompatibility, Section 10

## \*\*\* Section 2 - Hazards Identification \*\*\*

**OSHA Hazard Communication Standard:** Considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Classified as Dangerous Goods for transport purposes.

**Hazard Classification:** Metal Corrosion Category 1 | Serious Eye Damage Category 1 | Skin Corrosion/Irritation Category 1A

**Labeling:**



**Signal Word:** DANGER!

**Hazard Statements:** May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage.

**PREVENTION:** Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original packaging.

**FIRST AID/IN CASE OF FIRE:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. 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. Specific treatment Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**STORAGE:** Store locked up.

**DISPOSAL:** Dispose of contents/container in accordance with all local, regional, national and/or international regulations.

**Hazards Not Otherwise Classified:** N.A.

**Percent of Ingredients of Unknown Toxicity:** N.A.

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

HAZARDOUS INGREDIENT	CAS #	PERCENT
SODIUM HYDROXIDE	1310-73-2	>90% (T.S.)

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T.S. = Trade Secret

\*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

**Component Related Regulatory Information:** This product may be regulated, have exposure limits or other information identified.

## \*\*\* Section 4 - First Aid Measures \*\*\*

If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting.

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

**Extinguishing Media, PPE and Guidance for FireFighter:** Water spray or fog. Foam. Dry chemical powder.

**Fire and Explosion Hazards:** Non combustible. Not considered a significant fire risk, however containers may burn. May emit corrosive fumes.

**Decomposition Products:** Oxides of carbon, sodium oxide

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

**Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.**

**Containment and Clean-Up Procedures:** Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Remove all ignition sources. Clear area of personnel and move upwind. Alert Fire Department and tell them location and nature of hazard. May be violently or explosively reactive.

## \*\*\* Section 7 - Handling and Storage \*\*\*

**Handling and Storage Procedures:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Plastic bag NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Store in original containers. Keep containers securely sealed.

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### Exposure Guidelines:

**A. General Product Information:** Follow all applicable exposure limits. Keep formation of airborne mists to a minimum.

### B. Component Exposure Limits:

CAS #	HAZARDOUS INGREDIENT	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)
1310-73-2	Sodium Hydroxide	2	2

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\*OSHA-PEL and ACGIH-TLV are 8-Hour TWA unless otherwise noted.

\*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

**Engineering Controls:** Set up ventilation to effectively remove and prevent buildup of any dust, vapor or mist generated from the handling of this product.

## PERSONAL PROTECTIVE EQUIPMENT

**Eyes/Face Protective Equipment:** Wear appropriate eye protection to prevent eye contact.

**Skin Protection:** Wear appropriate personal protective clothing to prevent skin contact. The worker should immediately wash the skin when it becomes contaminated. Remove wet or significantly contaminated work clothing and replace.

**Respiratory Protection:** If ventilation is not sufficient to effectively prevent buildup of dust, mists or vapors, provide appropriate NIOSH/MSHA respiratory protection.

**Personal Protective Equipment:** Provide eyewash fountains in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Provide facilities for quickly drenching the body within the immediate work area for emergency use where there is a possibility of exposure. Depending on the specific circumstances, a deluge shower, a sink or hose could be considered adequate.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

**Physical State:** Granular

**Color:** White, no odor

**pH:** Not Available

**Specific Gravity:** N.A.

**Evaporation Rate:** N.E.

**Solubility Water:** Soluble

**Vapor Density:** N.A.

**Vapor Pressure:** N.A.

**Octanol-Water Coefficient:** N.E.

**Boiling Point:** N.A.

**Melting Point:** Not Available

**Flash Point:** Not Available

**Auto-Ignition Temperature:** N.E.

**Decomposition Temperature:** N.E.

**Flammability Limits - Low:** N.A.

**Hi:** N.A.

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

**Chemical Stability:** Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerization will not occur.

**Conditions to Avoid:** None

**Hazardous Polymerization:** Will not occur.

## \*\*\* Section 11 - Toxicological Information \*\*\*

**Route of Exposure:** Eye/skin contact, inhalation, ingestion.

**Acute Toxicity:**

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## A: General Product Information

**Eye Contact:** If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.

**Skin Contact:** The material can produce severe chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Sodium hydroxide causes burns which may take time to manifest and cause pain, thus care should be taken to avoid contamination of gloves and boots. A 5% aqueous solution of it produces tissue death on rabbit skin while 1% solution caused no effect on irrigated rabbit eye.

**Skin Absorption:** No information available for this product.

**Ingestion:** Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the esophagus and stomach may experience burning pain; vomiting and diarrhea may follow. Ingestion of sodium hydroxide may result in severe pain, burns to the mouth, throat, stomach, nausea and vomiting, swelling of the throat and subsequent perforation of the gastro-intestinal tract and suffocation but a 1% solution (pH 13.4) of sodium hydroxide in water failed to cause any damage of the stomach or gullet in rabbits. The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion".

**Inhalation:** Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane. Sudden inhalation of sodium hydroxide dust may produce fatal outcome such as spasm, inflammation of the throat and airway, burns, severe lung inflammation and fluid accumulated in the lungs. These manifest as coughing, wheezing, shortness of breath, headache, nausea and vomiting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

**Chronic Hazards:** Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

**Medical Conditions Aggravated by Exposure:** The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

## Carcinogenicity:

### a: Component Carcinogenicity:

None.

## \*\*\* Section 12 - Ecological Information \*\*\*

## Ecotoxicity:

### A: General Product Information

No information available for this product.

### B. Component Analysis - Ecotoxicity - Aquatic Toxicity:

Sodium Hydroxide: LC50 (Rainbow Trout) = 45.5 mg/L/96H

**Persistence and Mobility:** No information available for this product

**Environmental:** For Metal: Atmospheric Fate - Metal-containing inorganic substances generally have negligible vapor pressure and are not expected to partition to air. Environmental Fate: Environmental processes, such as oxidation, the presence of acids or bases and microbiological processes, may transform insoluble metals to more soluble ionic forms. Environmental processes may enhance bioavailability and may also be important in changing solubilities. Aquatic/Terrestrial Fate: When released to dry soil, most metals will exhibit limited mobility and remain in the upper layer; some will leach locally into ground water and/ or surface water ecosystems when soaked by rain or melt ice. A metal ion is considered infinitely persistent because it cannot degrade further.

**Mobility in Soil:** No information available.

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## \*\*\* Section 13 - Disposal Considerations \*\*\*

Wastes must be tested using methods described in 40 CFR Part 261. It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous wastes. State and local regulations may differ from Federal disposal regulations. Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

## \*\*\* Section 14 - Transportation Information \*\*\*

**US DOT Information:** UN1823, SODIUM HYDROXIDE, SOLID, MIXTURE, 8, PG II

**Marine Pollutant:** No

**IMDG Classification:** UN1823, SODIUM HYDROXIDE, SOLID, MIXTURE, 8, PG II

**IATA Classification:** UN1823, SODIUM HYDROXIDE, SOLID, MIXTURE, 8, PG II

The data provided in this section is for information only and may not be specific for the package size or mode of transportation. See package label for further details.

## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

#### A: General Product Information

No additional information available.

#### B: Component Analysis

This material may contain chemicals, requiring identification under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

HAZARDOUS COMPONENT	CERCLA RQ LBS.	SECT 302 TPQ LBS.	SECT 313* TOXIC	Maximum %
Sodium Hydroxide	1000	N.A.	NO	>90

**Sara 311/312 Hazards:**

<b>Immediate (Acute)</b>	TRUE
<b>Chronic*</b>	FALSE
<b>Fire</b>	FALSE
<b>Sudden Release-of-Pressure</b>	FALSE
<b>Reactive</b>	TRUE

### State Regulations

#### A: General Product Information

No additional information available.

### Other Regulations

#### A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

#### B: Component Analysis - Inventory

## \*\*\* Section 16 - Other Information \*\*\*

#### Revision Date:

Rev. 1, June 1, 2015

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**Key/Legend:**

ACGIH = American Conference of Governmental Industrial Hygienists	NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act	NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency	NTP = National Toxicology Program
HMIS = Hazardous Material Identification System	OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer	SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration	TSCA = Toxic Substance Control Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Heatbath Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

This is the end of SDS for CHEM ALUM ETCH 400.