

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Alpha Solve I/Alpha Solve II (Sodium Hydroxide)**

AR168, AR169, AR2174, AR2176

This product is intended for laboratory use.

Alpha Resources Inc. 3090 Johnson Rd. Stevensville, MI 49127 (269)465-5559

CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word: DANGER

SECTION 2— HAZARDS IDENTIFICATION

Hazard class: Corrosive to metals (Category 1), skin corrosion (Category 1A), serious eye damage (Category 1), and acute aquatic toxicity (Category 3).

Hazard statement: May be corrosive to metals (H290), causes severe skin burns and eye damage (H314), causes serious eye damage (H318), and harmful to aquatic life (H402).

Precautionary statement: Keep only in original container (P234), don't breathe dust or mist (P260), wash skin thoroughly after handling (P264), avoid release to the environment (P273), wear protective gloves/eye protection/face protection (P280), **if swallowed:** rinse mouth. Do NOT induce vomiting (P301+P330+P331), **if on skin(or hair):** take off immediately all contaminated clothing, rinse skin with water/shower (P303+P361+P353), **if inhaled:** remove person to fresh air and keep comfortable for breathing, immediately call a poison center or doctor/physician (P304+P340+310), **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 (P305+P351+P338+P310), wash contaminated clothing before reuse (P363), absorb spillage to prevent material damage (P390), store locked up (P405), store in corrosive resistant stainless steel container with a resistant inner liner (P406), dispose of contents/container to an approved waste disposal plant (P501).

**SECTION 3— COMPOSITION, INFORMATION ON INGREDIENTS****Hazardous substance required for disclosure.**

Component	CAS #	Common %
Sodium Hydroxide	1310-73-2	<100

SECTION 4— FIRST AID MEASURES

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340). If breathing is difficult qualified personnel may administer Oxygen. If not breathing give artificial respiration when qualified.

If on skin: Wash with plenty of water. (P302+P352). Wash contaminated clothing before reuse (P363). Consult physician.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).

If swallowed: Rinse mouth. Call a poison center or physician.

SECTION 5 — FIRE FIGHTING MEASURES

Extinguishing media: use water spray, alcohol-resistant foam, and dry chemical or carbon dioxide.

Special hazards arising from substance or mixture: Sodium Oxides.

Advice for Firefighters: Wear self-contained breathing apparatus for firefighting when necessary. Use water spray to cool unopened containers, exposed to heat.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Use the proper personal protective equipment that is available. Be careful to not generate any dust. Avoid breathing vapors, mist, or gas. Be sure to work under proper ventilation. Evacuate personnel to areas not affected. Avoid breathing any fine particles.

Methods of cleanup: This material can be swept up and placed in a sealed vessel for disposal. An electrically protected vacuum cleaner can be used to remove spill. Make sure to not stir up the dust because it can be harmful when inhaled. Wash the area with wet cloth after being swept up completely.

Environmental precautions: At all costs the discharge into environment must be avoided. This product should be prevented from entering any sewers and water sources. Prevent further leakage where necessary.

SECTION 7 — HANDLING AND STORAGE

Handling: Keep sealed and don't breathe dust if produced. Wear appropriate clothing for protection. Where no ventilation is available a respirator will be required. Avoid the creation of dust and aerosols.

Storage: This product should be stored in a cool, dry well ventilated place and kept sealed (P233) when not in use.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limit Values: OSHA(PEL), 2mg/m³ ACGIH (TLV), Ceiling, 2mg/m³

Engineering Controls: This material should be handled in accordance to good lab practices in regards to safety and hygiene. Wash hands before breaks and at end of workday.

Personal Protection: Respiratory protection could be required if adequate ventilation has not been achieved. A full-face respirator type N100 or type P3 respirator cartridges as a backup to ventilation controls. If there is no ventilation in place, a full-face supplied air respirator is required. Use of government standard respirators or components should be used when necessary.

Hand Protection: Glove suitability will differ depending on the end use of product. Chemical resistant gloves can provide an excellent barrier of protection. Gloves should be inspected before use and proper glove removal techniques should be performed to avoid any contact with this material. Wash and dry hands after use.

Eye protection: Safety glasses with side shields are necessary if splashing is possible.

Skin and Body Protection: Chemical and oil resistant clothing are recommended for extended periods of contact.

Hygiene: Wash hands and areas of possible exposure after handling material especially before eating, drinking, and smoking. The work clothing should also be washed regularly to remove any contaminants. Dispose of contaminated clothing that can't be deemed safe.

Environmental: DO NOT! Let product enter water ways or sewers.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health, and environmental considerations only and may not represent the products specifications. Contact supplier for additional information.

Solid black/gray granular

Odorless

Relative Density: 2.1 g/cm³

Melting Point: 318°C

Boiling Point: 1388°C

Vapor Density: 1.38 – (air=1)

Refractive index: N/A

Soluble (water): ca. 1260g/l @20°C

Flash point: N/A

Auto-Ignition Temperature: N/A

SECTION 10 — STABILITY AND REACTIVITY

Stable material at normal laboratory conditions.

Avoid: Don't create/disperse dust or powder. Will react violently with strong acids. DON'T mix with other chemicals. Keep away from incompatible materials.

Incompatible: Strong acids, water, Aluminum, and Zinc.

Hazardous Decomposition: When exposed to air water and Carbonate form.

Hazardous Polymerization: N/A

SECTION 11 — TOXICOLOGICAL INFORMATION

Toxicological effects: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. The toxicological properties haven't been fully investigated.

Acute toxicity: causes burns LD50 Intraperitoneal, Mouse, 40mg/kg

Local effects: Irritating to the eyes, skin, and respiratory system.

Skin corrosion/irritation: skin-rabbit: causes severe burns (24hrs)

Serious eye damage/irritation: eyes-rabbit: corrosive (24hrs)

Respiratory or skin sensitization: wont occur

Points of entry: inhalation, skin contact, and ingestion

Inhalation: N/A

Skin contact: N/A

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

Chronic toxicity: N/A

Reproductive toxicity: N/A

SECTION 12 — ECOLOGICAL INFORMATION

Eco-toxicity Data:

Toxicity to fish: LC50-Gambusia affinis (mosquito fish)-125mg/l (96hrs)

LC50-Oncorhynchus mykiss (rainbow trout)-45.4mg/l (96hrs)

Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50-Daphnia(water flea)-40.38mg/l (48hrs)

Mobility in the soil: N/A

Persistence and degradability: N/A

Harmful to aquatic life if discharged into streams or lakes. An environmental hazard can't be excluded in the event of handling or disposing unprofessionally.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste disposal: Collect product and reclaim or dispose in sealed containers at a licensed waste disposal site. Dispose of contents/container in accordance with local, regional, national, and international regulations.

Hazardous Waste code: The waste code should be assigned in discussion with the user, the producer, and the waste disposal company. Dispose in accordance with all applicable regulations.

Waste from residues: Dispose of in accordance with local regulations. Empty all containers or liners that may retain residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 — TRANSPORT INFORMATION

DOT UN number: UN1823 Class: 8 Packing group: II Proper shipping name: Sodium Hydroxide, solid
Special Provisions: IB8, IP2, IP4, T3, TP33 Packaging exceptions: 1524 Packaging non-bulk: 212
Packaging bulk: 240

IMDG UN number: UN1823 Class: 8 Packing group: II Proper shipping name: SODIUM HYDROXIDE,SOLID
Marine pollutant: No EmS: F-A, S-B

IATA UN number: UN1823 Class: 8 Packing group: II Proper shipping name: Sodium Hydroxide, solid
Environmental hazard: No ERG Code 8L

Special precaution for user: Read safety instructions, SDS and emergency procedures before handling.

SECTION 15 — REGULATORY INFORMATION

This material is considered hazardous according to OSHA HazCom 2012, 29CFR 1910.1200

U.S. Federal Regulations

TSCA Status: On Toxic Substance Control Act Inventory List.

CERCLA Reportable Quantity: 1000lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories: Immediate hazard and reactivity hazard.

Section 303 extremely hazardous substance: Not listed

SARA 311/312 Hazardous chemical: Yes

Massachusetts Right to know components: Sodium Hydroxide CAS# 1310-73-2 Revision Date: 4/24/93

Pennsylvania Right to know components: Sodium Hydroxide CAS# 1310-73-2 Revision Date: 4/24/93

New Jersey Right to know components: Sodium Hydroxide CAS# 1310-73-2 Revision Date: 4/24/93

Rhode Island Right to know components: Sodium Hydroxide CAS# 1310-73-2 Revision Date: 4/24/93

California Prop. 65 Components: This product doesn't contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS and NFPA Regulations

HMIS/NFPA: Health: 3

Flammability: 0

Physical Hazard: 2

SECTION 16 — OTHER INFORMATION

The data and information as stated was furnished by the manufacturer/vendor/supplier of this product. Alpha Resources Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.
