

**MATERIAL SAFETY DATA SHEET**  
Emergency telephone (262) 251-4977

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

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Name: **Alliance Group, Inc.**

Address: N114 W18621 Clinton Drive

City: Germantown

State: Wisconsin

Zip Code: 53022

Product name: **Alkaline Purge**

Product code: 0104

Revised: 8/1/07

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**Section 2 - Composition/Information on Ingredients**

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CAS Number	Component	OSHA Hazard	% by wt.
1310-73-2	Sodium Hydroxide	Yes	<80%

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**Section 3 - Hazards Identification**

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Physical State: Liquid

Color: Clear to slightly cloudy Light brown

Odor: slight Odor

**Emergency Overview: DANGER! CORROSIVE.** Causes severe burns to the eyes, skin, respiratory tract. Not flammable, but reacts with most metals to form explosive/flammable hydrogen gas. May be harmful if absorbed through the skin. Harmful or fatal if swallowed. Do not get in eyes, on skin or clothing. May be harmful or fatal if inhaled. Avoid breathing mist or dust. Use with adequate ventilation. DANGER! May react violently with water.

**Potential Health Effects**

Routes of Exposure: Eyes, Ingestion, Inhalation, Skin, Absorption

Eyes: Corrosive. Causes severe irritation and burns. May cause: permanent eye damage. Blindness. Corneal damage. Mist may cause: irritation. High vapor concentration may cause: tissue destruction. Effects may vary depending on length of exposure, solution concentration and first aid measures.

Skin: Corrosive. Causes severe irritation and burns. Corrosive action causes burns and frequently deep ulceration with ultimate scarring. Note that irritation may follow an initial latency. The latency may vary as much as hours for dilute solutions to minutes for more concentrated solutions. Prolonged or repeated contact, even with dilute concentrations, can cause a high degree of tissue destruction. Large amounts can cause redness, swelling.

Skin Absorption: May be harmful if absorbed through skin.

Ingestion: Corrosive-Causes severe irritation and burns. May cause damage to mouth, throat and stomach. May be fatal if swallowed. Ingestion can cause severe burns and complete tissue perforation of the mucous membranes of the mouth, throat and stomach. May cause abdominal pain, nausea, vomiting, gastrointestinal disturbances, diarrhea.

Inhalation: Corrosive-Causes severe irritation and burns. Dusts or mist may cause damage to the respiratory tract. Lungs. May cause: shortness of breath. Wheezing. Chest pains. Pneumonitis. Choking. Impaired lung function. May irritate: Nose. Mouth. Throat. Respiratory tract.

Medical conditions aggravated by exposure to product: Skin disorders. Lung disorders. Cardiovascular disorders. Eye disorders.

Carcinogenicity Status: Does not contain greater than 0.1% of the known or potential carcinogens listed in NTP, IARC or OSHA.

Potential Environmental effects: See section 12

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#### Section 4 - First Aid Measures

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**First Aid Procedure-Never give fluids or induce vomiting if patient is unconscious or having convulsions. CALL A PHYSICIAN**

**Eyes:** Immediately flush with large amounts of cool water for 15 minutes, holding lids apart. Tilt head to avoid contaminating unaffected eye. Get medical attention immediately. Washing within one minute is essential to achieve maximum effectiveness.

**Skin:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Discard footwear which cannot be decontaminated. Do not apply oils or ointments unless ordered by a physician. If skin feels slippery. Caustic may still be present in sufficient quantities to cause rash or burns. Continue washing skin until slick feeling is gone.

**Ingestion:** If fully conscious, drink a quart of water. DO NOT induce vomiting. Call a physician immediately. If unconscious or in convulsions, take immediately to a hospital or a physician. NEVER induce vomiting or give anything by mouth to an unconscious victim. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth – to – mouth. **Get immediate medical attention.**

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#### Section 5 - Fire Fighting Measures

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Flash Point: N.A.                      Lower Explosion Limit: N/A  
Upper Explosion Limit: N/A

**Extinguishing Media:** CO2, alcohol foam, water fog, dry chemical

**Fire and Explosion Hazards:** Product may react with some metals (ex. Aluminum, zinc, tin, etc.) to release flammable hydrogen gas.

**Fire Fighting Methods:** Evacuate area of unprotected personnel. Fire fighters should use (MSHA/NIOSH Approved or equivalent)self-contained breathing apparatus, and full protective gear as in any fire. Remain upwind of fire to avoid hazardous vapors and decomposition products. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Cool containers with water spray. Product generates heat upon addition of water, with possible spattering.

**Hazardous Combustion Products:** Hydrogen gas

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## Section 6- Accidental Release Measures

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**Steps to be taken in case of spills:** CORROSIVE MATERIAL Evacuate area of unprotected personnel. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit. Contain spill, then place in a chemical waste container for proper disposal. Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. CAUTION: Caustic Soda may react violently with acids and water.

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## Section 7 - Handling and Storage

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**STORAGE:** CORROSIVE MATERIAL. Store in a secure, dry, well ventilated, clean area out of direct sunlight. Keep away from incompatible materials. Do not store in unlabeled or mislabeled containers. Keep container tightly closed when not in use. Highly corrosive to most metals with evolution of hydrogen gas. Do not freeze.

**HANDLING:** Avoid contact with eyes, on skin, or on clothing. Use with adequate ventilation. DO NOT SWALLOW. Avoid breathing vapors, mist, or dust. Do not eat, drink or smoke in work area. Wash thoroughly after handling. CORROSIVE MATERIAL: Avoid dust or mist formation. Add product very slowly while stirring constantly. If product is added too rapidly or without stirring and becomes concentrated at the bottom of the mixing vessel, excessive heat may be generated resulting in dangerous boiling and spattering and possible immediate violent irruption of highly caustic solution.

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## Section 8 - Exposure Control/Personal Protection

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### Exposure Guidelines

Component	OSHA PEL	OSHA STEL/C	ACGIH TWA	ACGIH STEL/C
Sodium Hydroxide	C 2 mg/m <sup>3</sup> +	2 mg/m <sup>3</sup>	N.E.	N.E.

C= Denotes Ceiling Value + Vacated 1989 OSHA PEL(s)

**ENGINEERING CONTROLS:** General room ventilation is required. To keep exposure below established limits, local exhaust may be necessary. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

**RESPIRATORY REQUIREMENTS:** Respiratory protection may be required to avoid overexposure when handling this product. If exposure limits are exceeded, wear: NIOSH-Approved respirator for dusts and mists. NIOSH-Approved self contained breathing apparatus. Do not exceed limits established by the respirator manufacture. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

### **PROTECTIVE EQUIPMENT:**

**Eyes:** Chemical goggles and full face shield. Do not wear contact lenses.

**Skin Protection:** Impervious gloves. Neoprene. Polyvinyl chloride. Nitrile. Rubber.

**OTHER:** Rubber Apron. Eye wash. Safety shower. Rubber boots. Chemical safety shoes.

**GENERAL HYGIENE:** Wash hands with soap and water before eating and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking. Remove contaminated clothing and wash before reuse.

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### Section 9-Physical and Chemical Properties

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Solid: Liquid: X                      Appearance: Clear light brown  
Specific Gravity: 1.46                Odor: Slight odor  
Solubility in water: Complete      Freezing Point: N.D.  
Viscosity: N.D.                        pH: >12  
Vapor Density: N.D.                  Boiling Range: N.D.  
Odor Threshold: N.D.                Vapor Pressure: N.A.  
Coefficient of Water/Oil Distribution: N.D.  
Evaporation Rate: N.D.

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### Section 10- Stability and Reactivity

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Product Stable: No Yes X under normal conditions  
Hazardous Polymerization: Will not occur under normal conditions

Conditions to avoid: Contact with water may cause a violent reaction with evolution of heat. To dilute: Add product slowly to luke warm water; not water to product. Contact with acid or incompatible materials may cause a violent reaction with evolution of heat.

Incompatibility: Food Sugars. Deadly carbon monoxide gas can form in enclosed or poorly ventilated areas or tanks when alkaline products contact food, beverage, or dairy products. Do not enter such areas until they have been well ventilated and carbon monoxide and oxygen levels have been determined to be within OSHA acceptable limits. If carbon monoxide and oxygen levels cannot be determined wear NIOSH-approved, self contained breathing apparatus. Metals such as such as Aluminum, zinc, tin, etc. Acids. Phosphorous pentoxide. Organic materials. Organic nitro compounds. Chlorinated hydrocarbons. Florinated hydrocarbons. Acetaldehyde. Chlorine trifluoride. Hydroquinone. Maleic anhydride. Tetrahydrofuran. Acrolein. Phosphorous. Trichloroethylene. Leather. Wool. Strong Oxidizing agents. Strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Phosphorous oxides. Sulfur oxides. Phosphine. Flammable dichloroacetylene. May react with certain metals to produce flammable hydrogen gas.

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### Section 11 - Toxicological Properties

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LD50 Oral: No data  
LD50 Skin: No data  
LC50 Inhalation: No Data

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### Section 12 - Ecological Information

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Ecological Information: No data available.  
Chemical Fate Data: No data available.

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### Section 13 - Disposal Information

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Hazardous Waste Number: D002

Disposal Method: Dispose of in a permitted hazardous waste management facility following all federal, state and local regulations.

Do not pressurize, cut, weld, solder, drill, grind, or expose empty containers to heat, flame, sparks, or other sources of ignition.

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**Section 14 - Transportation Information**

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**DOT Proper Shipping Name:** Corrosive Liquid, Basic Inorganic N.O.S.  
**DOT Technical Name:** Sodium Hydroxide  
**DOT Hazard Class:** Class 8  
**DOT UN/NA Number:** UN3266      **Packing Group:** II      Resp. Guide Page 60  
**Label Required:** Corrosive  
**Reportable Quantity (RQ):** 1000# Sodium Hydroxide

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**Section 15 - Regulatory Information**

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**Federal Regulations:**

TSCA Inventory Status: This product or all components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

Sara Title III Section 311/312 Category

IMMEDIATE (ACUTE) HEALTH HAZARD:      Yes  
DELAYED (CHRONIC) HEALTH HAZARD:      No  
SUDDEN RELEASE OF PRESSURE HAZARD:    No  
FIRE HAZARD: No  
REACTIVE HAZARD: Yes

SARA Section 302/304/313/HAP

<u>Component</u>	<u>CERCLA RQ</u>	<u>SARA RQ</u>	<u>SARA TPQ</u>	<u>SARA 313</u>	<u>US HAP</u>
Sodium Hydroxide	1000	N.A.	N.A.	NO	NO

**STATE REGULATIONS**

California: The following components are listed under Prop 65: Formaldehyde (trace)

Wisconsin: The following components are listed as a Wisconsin HAP: Sodium Hydroxide

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**Section 16 - Other Information**

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	HMIS	NFPA
HEALTH	3	3
FLAMMABILITY	0	0
REACTIVITY	2	1

\*=Chronic Health Hazard      Special Hazard: None

**Legend:** N.A. - Not Applicable    N.E. - Not Established    N.D. - Not Determined    HAP: Hazardous air pollutant    VOC: Volatile Organic Compound    C: Ceiling    N.E./Not Estab.: Not Established

The above information is believed to be accurate and discloses the known hazards for this product as of this date. No additional warranties are made. Date: August 1, 2007 By: P.May