Section 1 - Product and Company identification

Trade name: Metro-Flo Alkali – Liquid Laundry Alkali

Manufacturer:
Metro-Chem, Inc.
24 Pennsylvania Avenue
Kearny, NJ 07032

Emergency Phone: 800-424-9300
Other Information: 973-589-2800
Date Prepared: 10-08-1987
Latest Revision: 6-1-2015

Section 2 – Hazard(s) Identification

Classification:

Corrosive to metals	Category 1
Acute toxicity, oral	Category 4
Skin corrosion/irritation:	Category 1B
Serious eye damage/ eye irritation	Category 1

Risk Phrases:
R22: Harmful if swallowed
R35: Causes severe burns

Label:



Signal Word: Danger

GHS Hazard Phrases:
H290: May be corrosive to metals
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage

GHS Precaution Phrases:
P103 Read label before use
P234: Keep only in original container
P260: Do not breathe (dust/fume/gas/mist/vapors/spray)
P264: Wash hands thoroughly after handling
P270: Do not eat, drink, or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection

GHS Response Phrases:
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell; rinse mouth; do not induce vomiting
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P303, 361, 363, 338: If on SKIN, remove/take off immediately all contaminated clothing, wash before reuse; rinse skin with water or use shower. For severe skin burns, get medical attention.
P304 + 334: IF INHALED: Remove person to fresh air and keep comfortable for breathing

Section 3 – Composition/information on ingredients

Potassium Hydroxide	CAS No: 1310-58-3 OSHA PEL: 2mg/m^3 ACGIH TLV: 2mg/m^3 Percentage 45%-60%
Sodium Silicate Liquid	CAS No: 1344-09-8 OSHA PEL: 2mg/m^3 ACGIH TLV: 2mg/m^3 Percentage 10%-25%

Section 4 – First Aid Measures

Inhalation Move to fresh air. Get medical attention if symptoms occur

Skin contact Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lung.

Section 5 – Fire Fighting Measures

Not considered to be a fire hazard.

Extinguishing Media: Water fog, Foam, Dry chemical powder, CO_2. Use any means suitable for extinguishing surrounding fire. Avoid direct contact of liquid with water

Unusual Fire & Explosion Hazards: The product itself does not burn. May decompose upon heating to produce corrosive and/or toxic fumes. Contact with metal my release flammable hydrogen gas. Not considered to be an explosion hazard.

Special protective equipment and precautions for firefighters: Fire fighters should enter the area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms and waist, should be worn. No skin surface should be exposed.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Methods and materials for containment and cleaning up: Large spills: Stop the flow of material if this is without risk. Dike and contain the spilled material when possible. Do not let pure product enter drains. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth) and place in a chemical waste container.
Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Do not flush to sewer! Label and remove for disposal by an approved waste transporter in accordance with Federal State and Local regulations.

Section 7 – Handling and Storage Measures

Precautions for safe handling: Use caution when combining with water. DO NOT add water to caustic; ALWAYS add caustic to water while stirring to minimize heat generation. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe mist or vapor. Wear appropriate personal protective equipment when handling product. Always keep product

container in containment when using. Observe all warnings and precautions listed for this product when handling.

Precautions for safe storage: Only store in cool, dry, well-ventilated locations. Store in corrosive resistant container with a resistant inner liner. Store away from incompatible materials (See section 10). Store at temperatures not exceeding 104°F. Compatible storage materials may include, but not be limited to the following: nickel, nickel alloys, steel, plastics, plastic or rubber-lined steel, FRP, or Derakane vinyl ester resin. Do not allow the material to freeze.

Section 8 – Exposure Controls/Personal Protection

Control parameters
Components with limit values that require monitoring at the workplace:
1310-58-3 Potassium Hydroxide

OSHA PEL	2mg/m^3 Ceiling
ACGIH TLV	2mg/m^3 Ceiling

Exposure Controls

Engineering Controls:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. An NIOSH-approved eye wash and emergency shower must be available when handling this product.

Personal Protective Equipment:
Eye Protection: Tightly sealed safety goggles or a full face shield where splashing is possible.
Protective Gloves: Compatible chemical-resistant gloves
Protective Clothing: Long sleeves, lab coats or chemical resistant aprons
Respiratory Equipment: NIOSH approved, air purifying respirator, or a NIOSH-approved SCBA, as conditions warrant**.**

General Protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work

Section 9 – Physical and Chemical Properties

Physical State:	Liquid	
Appearance and Odor:	Clear, odorless liquid	
Melting Point:	No data	
Boiling Point:	270°F	
Flash Point:	No data	
Evaporation Rate	No data	
Explosive Limits:	LEL: No data	UEL: No data
Vapor Pressure	6.4 mmHg @ 77°F	
Vapor Density (Air = 1)	No data	
Specific Gravity (H_2O = 1)	1.2	
Solubility in H_2O	Fully miscible	
Auto ignition Pt:	No data	
Percent Volatile	No data	
PH	13.5	

Section 10 – Stability and Reactivity

Reactivity:	Contact with metal may release flammable hydrogen gas
Stability:	Stable if stored in accordance with Section 7
Polymerization	Will not occur
Conditions to Avoid:	Heat and incompatibles
Incompatibility:	Strong acids, oxidizing agents, phosphorus, aluminum, Zinc, tin. Initiates or catalyzes violent polymerization of acetaldehyde, acrolein or acrylonitrile.
Hazardous Decomposition Or Byproducts:	Contact with metals (aluminum, zinc, tin) and sodium tetrahydroborate liberates hydrogen gas.

Section 11 – Toxicological Information

Acute Toxicity: Harmful if swallowed

1310-58-3 Potassium Hydroxide	Oral LD_{50}:	273 mg/kg (rat)
1344-09-8 Sodium Silicate	Oral LD_{50}:	1960 mg/kg (rat)
1344-09-8 Sodium Silicate	Dermal LD_{50}:	4640 mg/kg (rabbit)

Primary Irritant effect:
On the skin: Irritant, possible corrosive if contact is prolonged. Soreness, redness, destruction of skin may result.
On the eye; Irritant, possibly corrosive to eye tissues. Tearing, redness, pain, impaired vision.
Inhalation: Respiratory tract irritant may cause serious burns on acute contact.
Ingestion: Toxic! Corrosive to mucous membranes and may cause perforation of the esophagus and stomach.

Sensitization: No sensitizing effects known

Additional Toxicological information:
Chronic Exposure: Development of a defatting dermatitis on prolonged contact with Potassium Hydroxide has been reported.

Carcinogenic categories
IARC – None of the ingredients is listed
NTP – None of the ingredients is listed

Section 12 – Ecological Information

Eco toxicity: for Potassium Hydroxide: TLm: 80 ppm/Mosquito fish/24 h/Fresh water

Persistence and Degradability: No data available
Bio accumulative Potential: No data available
Mobility in Soil: No data available

Section 13 – Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261, D002: Waste Corrosive material (ph≤2 or ≥12.5, or corrosive to steel). Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. State and local disposal regulations may differ from federal disposal regulations.

Section 14 – Transport Information

UN Number	UN3266
UN Proper Shipping Name	Potassium Hydroxide, Solution
DOT Proper Shipping Name	Corrosive Liquid, Basic, Inorganic, n.o.s.
ADR Hazard Class	8
DOT Hazard Class	8 Corrosive
Packing Group	II
Marine pollutant	No



Section 15 – Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA SARA Lists:

Section 302.4:	Potassium Hydroxide Listed
Section 304(RQ):	Potassium Hydroxide 1,000 Lbs.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	Yes
Section 313 (specific toxic chemical listings):	No
TSCA (Toxic Substances Control Act):	Potassium Hydroxide
Carcinogens:	No
Teratogens	No
Chemicals causing developmental toxicity:	No

US State regulations:

Mass RTK:	Potassium Hydroxide (1310-58-3)
NJ RTK:	No
PA RTK:	Potassium Hydroxide (1310-58-3)
RI RTK:	Potassium Hydroxide (1310-58-3)
CA Prop 65:	No

Section 16 – Other Information

Disclaimer:

This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information; and, we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.