MATERIAL SAFETY DATA SHEET

Total Solutions
P.O. Box 240014
Milwaukee, WI 53224

GENERAL INFORMATION NUMBER: (414) 354-6417
CHEMTREC: (800) 424-9300

REVISION DATE: January 15, 2010
DATE OF ISSUE: January 18, 2010

I - Product Identification

Alkaline "pH Up" Adjustment

PRODUCT CODE: 0255
CHEMICAL FORMULATION: Alkaline solution.
NFPA HAZARD IDENTIFICATION SYSTEM: **HEALTH:** 3 **FLAMMABILITY:** 0 **REACTIVITY**: 1
HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 - Insignificant

II - Hazardous Ingredients

Values reported as TWA unless noted.

SUBSTANCE	APPROX %	OSHA PEL	ACGIH TLV	EPA 40 CFR: 302	355	372	CAS #
Sodium Hydroxide	40.0-50.0	2 mg/m^3 C	2 mg/m^3 C	Y	N	N	1310-73-2
Potassium Hydroxide	1.00-10.0	2 mg/m^3 C	2 mg/m^3 C	Y	N	N	1310-58-3

Key: **PEL**: Permissible Exposure Limit **TLV:** Threshold Limit Value **C**: Ceiling level **STEL**: Short Term Exposure Limit
N/A: Not Applicable **N/D**: Not Determined **N/E**: Not Established **Y**: Yes **N**: No
302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).
355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).
372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

III - Physical Data

BOILING POINT (°F): N/D
VAPOR PRESSURE (mm Hg): N/D
VAPOR DENSITY (AIR = 1): N/D
SOLUBILITY IN WATER: Soluble
SPECIFIC GRAVITY (WATER = 1): 1.48
VOC CONTENT (% by weight): None
EVAPORATION RATE (WATER = 1): N/D
pH: 14.00
APPEARANCE AND ODOR: Clear to slightly hazy viscous liquid; low odor.

IV - Fire and Explosion Hazard Data

FLASH POINT (°F): N/A **(TEST METHOD):** Closed cup
FLAMMABLE LIMITS IN AIR (VOLUME %) **UPPER:** N/D **LOWER:** N/D
EXTINGUISHING MEDIA: Water fog, foam, carbon dioxide, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water fog. Firefighters should be equipped with full protective gear including self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARD: Application of water to this material can cause violent exothermic reactions. Contact with some metals (including tin, zinc, aluminum) may produce flammable Hydrogen gas.

V - Reactivity Data

STABILITY: Stable
INCOMPATIBILITY: Strong acids, tin, zinc, aluminum, organic halogen compounds, and organic nitro compounds.
CONDITIONS TO AVOID: Mixing this material with water can cause violent exothermic reactions.
HAZARDOUS DECOMPOSITION PRODUCTS: Contact with some metals (including tin, zinc, aluminum) may produce flammable hydrogen gas.
HAZARDOUS POLYMERIZATION: Will not occur.

VI - Health Hazard Data

ROUTES OF ENTRY **INHALATION:** X **EYE CONTACT:** X **SKIN CONTACT:** X **INGESTION:** X
INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS: None.
EFFECTS OF OVEREXPOSURE
IF IN EYES: Corrosive - Causes severe irritation, redness and destruction of tissue. Small quantities can result in permanent damage and loss of vision, possibly leading to blindness.
IF ON SKIN: Corrosive - Causes severe irritation, burns, ulcerations. Severity is dependent upon length of exposure.
IF SWALLOWED: DANGER – May be fatal if swallowed. Causes burns to mouth, esophagus, stomach, and other tissues which contact is prepared. Severity is dependent upon amount of product exposed to.
IF INHALED: May cause burns to upper respiratory tract and to lung tissue depending upon length of exposure. Pneumonitis can result from severe exposure.
EMERGENCY AND FIRST AID PROCEDURES
IF IN EYES: Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. Obtain medical attention.
IF ON SKIN: Flush area with water while removing contaminated clothing. Launder clothing separately before reuse. Flush area with water for at least 15 minutes. Obtain medical attention.
IF SWALLOWED: Contact physician or poison control center immediately. Rinse mouth with water and give affected person 2 to 3 glasses of water or milk. Do not induce vomiting unless told to do so by a poison control center of doctor. Never give anything to an unconscious person.
IF INHALED: Remove person to fresh air. If breathing stops, administer artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

VII - Spill or Leak Protection

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Ventilate area and contain spill. Soak up spilled material with inert absorbent material and place in a properly marked closed container for proper disposal. Rinse residue with water.
WASTE DISPOSAL METHOD: Consult local environmental authorities.

VIII - Special Protection Information

RESPIRATORY PROTECTION: Use with adequate ventilation. Do not breathe vapors or mists. If recommended Exposure Limits are exceeded wear a NIOSH approved respirator, following manufacturer's recommendations.
VENTILATION **LOCAL:** Recommended **MECHANICAL:** Not required
PROTECTIVE GLOVES: Chemical resistant.
EYE PROTECTION: Chemical goggles and/or face shield
OTHER PROTECTIVE EQUIPMENT: Emergency shower and eye wash station. Protective clothing.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry place away from acids and reactive chemicals. Do not mix with any other cleaning chemicals. Never add water to this product, always add this product to water, slowly stirring. Keep container tightly closed when not in use.
OTHER PRECAUTIONS: Keep out of reach of children.

IX - Transportation Information (ground transportation only)

DOT ID #: UN3266 **DOT PROPER SHIPPING NAME:** Corrosive Liquids, basic, n.o.s. (sodium hydroxide, potassium hydroxide)
DOT CLASS: 8 **DOT PACKING GROUP**: II
The shipping information listed above applies only to non-bulk (< 119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.