SAFETY DATA SHEET
Hi Valley Chemical

1 PRODUCT AND COMPANY IDENTIFICATION

Supplier Details: High Valley Products, Inc.
1134 West 850 North
Centerville, Utah 84014

Emergency: PERS: 800-633-8253
Phone: 801-295-9591
Email: sales@hvchemical.com
Web: www.hvchemical.com

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):
- Health, Serious Eye Damage/Eye Irritation, 1
- Health, Skin corrosion/irritation, 1 A
- Environmental, Hazards to the aquatic environment - Acute, 3
- Physical, Corrosive to Metals, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

- DANGER

GHS Hazard Statements:
- H318 - Causes serious eye damage
- H314 - Causes severe skin burns and eye damage
- H402 - Harmful to aquatic life
- H290 - May be corrosive to metals

GHS Precautionary Statements:
- P234 - Keep only in original container.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash thoroughly after handling.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P310 - Immediately call a POISON CENTER or doctor/physician.
- P321 - Specific treatment (see _ on this label).
- P363 - Wash contaminated clothing before reuse.
- P390 - Absorb spillage to prevent material damage.
- P405 - Store locked up.
- P406 - Store in a corrosive resistant_/container with a resistant inner liner.
- P501 - Dispose of contents/container to _
3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>Cas#</th>
<th>%</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>25%</td>
<td>Sodium hydroxide solution</td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin Contact: Remove contaminated clothing immediately.
Wash with soap and water.
Consult a physician.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
Get immediate medical attention.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5 FIRE FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Sodium Oxides
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions:
Do not let product enter drains.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Handling Precautions: Avoid breathing vapors or mist.
Storage Requirements: Keep container tightly closed.
Store in cool/dry area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment: Sodium hydroxide solution (1310-73-2) [25%]

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash
and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril (KCL 740 / Aldrich Z677272, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:Dermatril (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124
Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or
mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the
CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial
hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It
should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be
selected according to the concentration and amount of the dangerous substance at the specific
workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a
full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to
engineering controls. If the respirator is the sole means of protection, use a full-face supplied air
respirator. Use respirators and components tested and approved under appropriate government
standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let
product enter drains. Discharge into the environment must be avoided.

**Sodium hydroxide solution (1310-73-2) [25%]**

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value (mg/m^3)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEIL</td>
<td>2</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000</td>
</tr>
<tr>
<td>TWA</td>
<td>2</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

Eye, skin, & Upper Respiratory Tract irritation

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</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
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</tbody>
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**Exposure Guidelines:**

**PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Colorless.</td>
</tr>
<tr>
<td>Physical State:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Completely soluble</td>
</tr>
<tr>
<td>Spec Grav./Density:</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Viscosity: No data available
Boiling Point: No data available
Freezing/Melting Pt.: No data available
Flash Point: No data available
Partition Coefficient: No data available
Vapor Pressure: No data available
Vapor Density: No data available
pH: 14.0
Evap. Rate: No data available
Auto-Ignition Temp: No data available
Decomp Temp: No data available
UFL/LFL: No data available

10 STABILITY AND REACTIVITY

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: No data available
Materials to Avoid: Water, acids, Organic materials, Chlorinated solvents, Aluminum, Phosphorus, Tin/tin oxides, Zinc
Hazardous Decomposition: No data available

11 TOXICOLOGICAL INFORMATION

Sodium hydroxide solution (1310-73-2) [25%]

Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: Causes severe burns. - 24 h

Serious eye damage/eye irritation: Eyes - rabbit Result: Corrosive - 24 h

Respiratory or skin sensitisation: Will not occur

Germ cell mutagenicity: no data available

Carcinogenicity:
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: WB4900000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Sodium hydroxide solution (1310-73-2) [25%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h.
LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h
Toxicity to daphnia and Immobilization EC50 - Daphnia - 40.38 mg/l - 48 h.
other aquatic invertebrates

Persistence and degradability: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Dispose of in accordance with local regulations.

UN1824, Sodium hydroxide solution, 8, PGII

Component (CAS#) [%] - CODES
-----------------------------------------------------------------
RQ(1000LBS), Sodium hydroxide solution (1310-73-2) [25%] CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TXAIR
-----------------------------------------------------------------

RQ = Reportable Quantity
CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
OSHA W = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
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