1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product Identity 50024
Alternate Names 50024

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use Contact ChemStation representative.
Application Method Contact ChemStation representative.

1.3. Details of the supplier of the safety data sheet
Company Name
ChemStation of NC (Greensboro)
1121 Willowbrook Dr.
Greensboro NC 27403

Emergency
CHEMTREC (USA) (800) 424-9300
Customer Service: ChemStation of NC (Greensboro) (336) 294-4050

2. Hazard identification of the product

2.1. Classification of the substance or mixture
Acute Tox. 5;H313 May be harmful in contact with skin. (Not adopted by US OSHA)
Skin Corr. 1A;H314 Causes severe skin burns and eye damage.
Eye Dam. 1;H318 Causes serious eye damage.
Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
H313 May be harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]:
P260 Do not breathe mist / vapors / spray.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:
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+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
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.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

[Storage]:
P405 Store locked up.

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>25 - 50</td>
<td>Skin Corr. 1A+H314</td>
<td>[1][2]</td>
</tr>
<tr>
<td>CAS Number: 0001310-73-2</td>
<td></td>
<td>Acute Tox. 4+H312</td>
<td></td>
</tr>
</tbody>
</table>

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.
Inhalation
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion
If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview
No specific symptom data available.
See section 2 for further details.

Eyes
Causes serious eye damage.

Skin
May be harmful in contact with skin. (Not adopted by US OSHA) Causes severe skin burns and eye damage.

5. Fire-fighting measures

5.1. Extinguishing media
Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: No hazardous decomposition data available.
Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters
Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

ERG Guide No. 154

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions
Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

7. Handling and storage

7.1. Precautions for safe handling
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage.
Incompatible materials: Any acidic material, ammonia, urea, oxidizable materials and metals such as nickel, copper, tin, aluminum and iron.
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
No data available.

8. Exposure controls and personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001310-73-2</td>
<td>Sodium hydroxide</td>
<td>OSHA</td>
<td>TWA 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>C2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001310-73-2</td>
<td>Sodium hydroxide</td>
<td>OSHA, Select Carcinogen: No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP, Known: No; Suspected: No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC, Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Respiratory: Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes: Wear safety glasses with side shields to protect the eyes. The use of a face shield is also recommended for skin protection in the area of the eyes. An eye wash station is suggested as a good workplace practice.

Skin: Chemical resistant clothing such as coveralls/apron boots should be worn. Chemical Impervious Gloves

Engineering Controls: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Brown viscous liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH</td>
<td>13.7 - 14.0</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>212 deg F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200 degrees F PMCC (non-flammable)</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>0.33</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower Explosive Limit: Not Measured</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limit: Not Measured</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.375 - 1.395</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Foaming</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.
10.2. Chemical stability
Self-accelerating decomposition, with oxygen release, at temperatures above 122F(50C).

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
No data available.

10.5. Incompatible materials
Any acidic material, ammonia, urea, oxidizable materials and metals such as nickel, copper, tin, aluminum and iron.

10.6. Hazardous decomposition products
No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide - (1310-73-2)</td>
<td>6,600.00, Mouse - Category: NA</td>
<td>1,350.00, Rabbit - Category: 4</td>
<td>600.00, Mouse - Category: NA</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>5</td>
<td>May be harmful in contact with skin. (Not adopted by US OSHA)</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>1A</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>1</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>—</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

12. Ecological information
12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.
Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide - (1310-73-2)</td>
<td>196.00, Poecilia reticulata</td>
<td>40.38, Ceriodaphnia dubia</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
This product is fully biodegradable.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT or vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

14.1. UN number
NA1760

14.2. UN proper shipping name
Compound, Cleaning, Liquid, (Sodium Hydroxide)

14.3. Transport hazard class(es)
8

14.4. Packing group
III

15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
D2B E

US EPA Tier II Hazards
Fire: No
16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.

End of Document