Material Safety Data Sheet

IDENTITY (As Used on Label and List)
Biuret Solution

Section I
Manufacturer's Name
Columbus Chemical Industries, Inc.,
Address (Number, Street, City, State, and ZIP Code)
N4335 Temkin Road
Columbus, WI 53925

Emergency Telephone Number
(614) 623-2140

Telephone Number for Information
(614) 623-2140

Date Prepared
4/6/87

Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identity Information
Hazardous Components (Specific Chemical Identity; Common Name(s))
OSHA PEL
ACGIH TLV
Other Limits Recommended
% (optional)

Copper Sulfate
CAS #7758-98-7
N/A
1 mg/m³
---
<1%

Sodium Hydroxide
CAS #1310-73-2
2 mg/m³
2 mg/m³
---
78%

Water (nonhazardous)
Balance

Section III — Physical/Chemical Characteristics
Boiling Point
N/A
Specific Gravity (H₂O = 1)
N/A

Vapor Pressure (mm Hg.)
N/A
Melting Point
N/A

Vapor Density (AIR = 1)
N/A
Evaporation Rate
Butyl Acetate = 1
N/A

Solubility in Water
Complete

Appearance and Odor
Water-white solution

Section IV — Fire and Explosion Hazard Data
Flash Point (Method Used)
Nonflammable
Flammable Limits
LEL
UEL
N/A
N/A

Extinguishing Media
Suitable to extinguish the supporting flame.

Special Fire Fighting Procedures
Wear self-contained breathing apparatus.

Use water spray to cool containers involved to help prevent rupture.

Unusual Fire and Explosion Hazards
Sodium Hydroxide will react with metals such as aluminum, tin and zinc to generate
flammable and explosive hydrogen gas.

(Reproduce locally)
Section V — Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>Unstable</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)

Acids, organics such as nitrocarmens and halocarbons, leather, wood, aluminum, tin, zinc

Hazardous Decomposition or Byproducts
none

Section VI — Health Hazard Data

<table>
<thead>
<tr>
<th>Route(s) of Entry:</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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</table>

Health Hazards (Acute and Chronic)

Sodium hydroxide is a strong alkali and is destructive of all human tissue it contacts. Giving severe burns. Eye contact will produce severe permanent injury. Inhalation of mist or spray can injure the entire respiratory tract.

Carcinogenicity: NTP? no, IARC Monographs? no, OSHA Regulated? no

Signs and Symptoms of Exposure
See Health Hazards listed above.

Medical Conditions
Generally Aggravated by Exposure

Unknown to CCI

Emergency and First Aid Procedures
GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation: dilute by drinking water. Do NOT induce vomiting. Get medical attention.

Inhalation: remove to fresh air. Keep person warm and at rest. Eye: wash eyes immediately with water including under eyelids. Skin: flush with water, remove contacted clothing UNDER the shower.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled
Pick up spill with vacuum equipment (alkali resistant) for disposal or flush to holding area with water. Neutralize residues with dilute acid and rinse with water.

Waste Disposal Method

Waste caustic must never be discharged directly to sewers or surface waters. First convert to neutral salts and dilute well with water. Inform legal authorities of uncontrolled spills. Comply with all Federal, State and local regulations.

Precautions to Be Taken in Handling and Storing
Store in well-sealed containers, which are protected from physical damage. Store in cool, dry area. Avoid handling conditions which can lead to spills or mist formation.

Other Precautions
Have abundant running water available where material is stored, unloaded, or handled.

DOT Hazard Class: Corrosive material.

Section VIII — Control Measures

Respiratory Protection (Specify Type)

NIOSH approved respirator above exposures of 2 mg/m³

<table>
<thead>
<tr>
<th>Ventilation</th>
<th>Local Exhaust</th>
<th>Mechanical (General)</th>
<th>Special</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X especially if mists form</td>
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</table>

Protective Gloves
rubber gloves

Eye Protection
safety goggles

Other Protective Clothing or Equipment
Apron or protective clothing, and rubber boots

Work/Hygienic Practices
Wash thoroughly after handling. Normal good manufacturing and housekeeping procedures.