SAFETY DATA SHEET
222 MP

Section 1. Identification

GHS product identifier : 222 MP
Product code : 11671330, 11671470, 11671100, 11671150
SDS # : DUB00491
Other means of Identification : Not available
Product type : Liquid

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Alkaline Cleaner – This product is intended to be diluted prior to use
 Supplier/Manufacturer : BBS Equipment Sales Ltd.
 946759 Township Road 14
  Plattsville, ON
  N0J 1S0
Emergency Telephone : 1-866-923-4919 (US and Canada)
Number : 01-651-523-0314 (Int'l and Mexico)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Classification of the Substance or mixture : CORROSIVE TO METALS – Category 1
   SKIN CORROSION/IRRITATION – Category 2
   SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2A
   CARCINOGENICITY – Category 2
GHS label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : May be corrosive to metals
               Causes serious eye irritation.
               Causes skin irritation.
               Suspected of causing cancer.

Precautionary statements
Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection equipment as required. Wear protective gloves. Recommended: Chemical-resistant gloves. Wear eye or face protection. Recommended: splash goggles. Wear protective clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.
Response : Absorb spillage to prevent material damage. IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage : Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal : Dispose of contents and container in accordance with all local, regional, national and International regulations.

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Section 2. Hazards identification

Hazards not otherwise : None known.
Classified

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine, N, N-bis (carboxymethyl, sodium salt (1:3:1)</td>
<td>5-10</td>
<td>18662-53-8</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>1-5</td>
<td>68439-46-3</td>
</tr>
<tr>
<td>1-Propanaminimum, 3-amino-N-(carboxymethyl-N, N-dimethyl-, N-coco acyl derivs, hydroxides, inner salts</td>
<td>1-5</td>
<td>61789-40-0</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1-5</td>
<td>1310-73-2</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the Concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye Contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin Contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious Place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye Contact : Causes serious eye irritation.
Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin Contact : Causes skin irritation.

Ingestion : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

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Section 4. First aid measures

Eye Contact: Adverse symptoms may include the following:
- Pain or irritation
- Watering
- Redness

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:
- Irritation
- Redness

Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition: In a fire or if heated, a pressure increase will occur and the container may burst.

Decomposition products: Decomposition products may include the following materials:
- Carbon dioxide
- Carbon monoxide
- Nitrogen oxides
- Metal oxide/oxides

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, Vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Handling: Put on appropriate personal protective equipment (see Section 8). Avoid exposure – obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep container tightly closed and sealed until upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS #</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>C: 2 mg/m3</td>
<td>TWA: 2 mg/m3 8 hours</td>
<td>LMPE-Pico: 2 mg/m3</td>
</tr>
</tbody>
</table>

Engineering measures: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: If a risk assessment indicates this is necessary, use a properly fitted, air-purifying or airfed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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Section 8. Exposure controls/personal protection

Personal protective equipment (Pictograms)

Section 9. Physical and chemical properties

Appearance
Physical state: Liquid
Color: Clear Purple
Odor: surfactant (slight)
Odor threshold: Not available
pH: 12.8
Melting point: Not available
Boiling point: Not available
Flash point: Closed cup: Not applicable. (Product does not sustain combustion.)
Burning time: Not applicable
Burning rate: Not applicable
Evaporation rate: Not available
Flammability: Not available
(solid, gas)
Lower and upper explosive (flammable) limits: Not available
Vapor pressure: Not available
Vapor density: Not available
Relative density: 1.07
Solubility: Easily soluble in the following materials: cold water and hot water
Solubility in water: Not available
Partition coefficient noctanol/water: Not available
Auto-ignition temperature: Not available
Decomposition temperature: Not available
Viscosity: Not available
Elemental Phosphorus: 0.07%
VOC content: Not available

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients
Chemical stability: The product is stable
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur
Conditions to avoid: No specific data
Incompatible materials: Extremely reactive or incompatible with the following materials: acids
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced

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Section 10. Stability and reactivity

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 11. Toxicological information

Information on toxicological effects

Carcinogenicity

<table>
<thead>
<tr>
<th>Classification</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine, N, N-bis (carboxymethyl)-, sodium Salt, hydrate (1:3:1)</td>
<td>-</td>
<td>2B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

Eye contact: Causes serious eye irritation

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure

Skin contact: Causes skin irritation

Ingestion: Irritating to mouth, throat and stomach

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: No specific data

Skin contact: Adverse symptoms may include the following:
- irritation
- redness

Ingestion: No specific data

Delayed and immediate effects and also chronic effects from short and long terms exposure

Short term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Long term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Potential chronic health effects

General: No known significant effects or critical hazards

Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure

Mutagenicity: No known significant effects or critical hazards
Section 11. Toxicological information
Teratogenicity : No known significant effects or critical hazards
Developmental effects : No known significant effects or critical hazards
Fertility effects : No known significant effects or critical hazards
Numerical measures of toxicity
Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4677.5 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>91666.7 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information
Ecotoxicity : Not available
Aquatic ecotoxicity
Not available

Section 13. Disposal considerations
Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification : D002 (corrosive)
Disposal should be in accordance with applicable regional, national and local laws and regulations.
Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION For additional handling information and protection of employees.

Section 14. Transport information
IATA/IMDG/DOT/TDG: Please refer to the Bill of Lading/receiving documents for up to date shipping information.

Section 15. Regulatory information
U.S. Federal regulations: TSCA 12(b) one-time export: No products were found.
TSCA 12(b) annual export notification: No products were found.
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 311: sodium hydroxide
CERCLA: Hazardous substances: sodium hydroxide: 1000 lbs. (454 kg);

EPA Registration no. : Not available
Clean Air Act : Not listed

Section 112 (b) Hazardous Air Pollutants (HAPs)
SARA 302/304
Composition/information on ingredients
No products were found.
SARA 304 RQ : Not applicable
SARA 311/312
Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard
Section 15. Regulatory information

State Regulations

Massachusetts: The following components are listed: NTA TRISODIUM SALT H2O; SODIUM HYDROXIDE
New York: The following components are listed: Sodium hydroxide
New Jersey: The following components are listed: SODIUM HYDROXIDE; CAUSTIC SODA
Pennsylvania: The following components are listed: SODIUM HYDROXIDE (NA(OH))

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycine, N, N-bis (carboxymethyl) sodium Salt, hydrate (1:3:1)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Canada
Canadian lists
Canadian NPRI: The following components are listed: Nitrilotriacetic acid (and its salts)
Canada inventory: All components are listed or exempted.
Canadian PCP/DIN #: Not available

International regulations
International lists: Australia inventory (AICS): Not determined
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): Not determined.

Section 16. Other information

History
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Revision
Date of previous issue: No previous validation
Version: 1

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.