1. Identification

1.1. Product identifier

Product Identity: PIRANHA

Alternate Names: 30-599, 30-601, Blended Formula, PIRANHA

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

Intended use: See Technical Data Sheet.

Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name: ComStar International Inc.

20-45 128th Street,

College Point, NY 11356

Telephone No.: 718-445-7900

800-328-0142

Fax: 718-353-5998

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Corr 1A;H314 Causes severe skin burns and eye damage.

Eye Dam. 1 ;H318 Causes serious eye damage.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

[Prevention]:

P260 Do not breathe mist / vapors / spray.

P264 Wash thoroughly after handling.

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 I Take off immediately all contaminated clothing. Rinse skin with
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 CAS #: 1310-73-2</td>
<td>&gt;70</td>
<td>Skin Corr. 1B H314 Eye Dam. 1 H318 Aquatic Acute 3 H402</td>
<td>[1][2]</td>
</tr>
<tr>
<td>SODIUM CHLORIDE CAS #: 7647-14-5</td>
<td>&lt;20</td>
<td>Skin Irrit. 2 Eye Irrit 2</td>
<td>[1]</td>
</tr>
<tr>
<td>CARBONIC ACID DISODIUM SALT CAS #: 497-19-8</td>
<td>&lt;15</td>
<td>Skin Irrit. 2 H315 Eye Irrit. 2A H319</td>
<td>[1]</td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[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**  
Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give Cardiopulmonary Resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.

**Eyes**  
Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim until the recommended flushing period is completed unless flushing can be continued during transport.

**Skin**  
Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim unless the recommended flushing period is
completed or flushing can be continued during transport.

While the patient is being transported to a medical facility, apply compresses of iced water. If medical treatment must be delayed, immerse the affected area in iced water. If immersion is not practical, compresses of iced water can be applied. Avoid freezing tissues.

**Ingestion**

If victim is alert and not convulsing, rinse mouth and give % to 1 glass of water to dilute material. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY contact local poison control center. Vomiting may need to be induced but should be directed by a physician or a poison control center. IMMEDIATELY transport victim to an emergency facility.

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

**Overview**

**IMMEDIATE CONCERNS:** CAUTION: May cause eye or skin burns. Avoid vapor.

**POTENTIAL SIDE EFFECTS**

**EYES:** Tissue destruction and permanent eye damage may occur if not treated immediately.

**SKIN:** May be corrosive and cause severe burns.

**INGESTION:** Corrosive to mucous membranes of the mouth, esophagus, stomach & throat.

**INHALATION:** Avoid mist, can be a severe irritant.

**ACUTE TOXICITY:** Eye, skin, lung burning may be caused with exposure to mist. Avoid mist.

**TARGET ORGAN STATEMENT:** Contains material which may cause damage to gastrointestinal tract and respiratory tract.

Note to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Medical conditions that may be aggravated by exposure include asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus or throat conditions. Severity of the burn is generally determined by the concentration of the solution and the duration of exposure. In the event of skin or eye contact, immediate and thorough flushing is essential. Continued washing of the effected area with cold or iced water will be helpful in removing the last traces of sulfuric acid. Cream or ointments should not be applied before or during the washing phase of the treatment. See section 2 for further details.

**Eyes**

Causes serious eye damage.

**Inhalation**

Causes serious eye damage.

### 5. Fire-fighting measures

5.1. Extinguishing media

For small fires, use dry chemical or carbon dioxide. For large fires, flood fire area with water from a distance. Expect violent reaction with water. Do not get solid stream of water on spilled material.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of sulfur at high temperatures. Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.
Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters
Wear self-contained breathing apparatus and protective clothing.
ERG Guide No. ---137

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
Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

7. Handling and storage

7.1. Precautions for safe handling
Wear appropriate Personal Protection Equipment. Do not breathe sprays or mists. Do not ingest. Do not get in eyes, on skin or on clothing. Keep ignition sources away from sulfuric acid storage, handling and transportation equipment.

Handling Procedures and Equipment: Carbon steel or stainless steel materials are suitable for use for acid concentrations equal to or greater than 93%. However, the effect of lower concentrations on the materials of construction can be very complex. Contact product supplier for specific recommendations when handling sulfuric acid at strengths less than 77%.

Sulfuric acid will attack some forms of plastics and coatings. Always add acid to water - not water to acid. If kept in upper floors of building, floors should be acid proof with drains to a recovery tank. See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage.
Store between -5C and 40C.

Incompatible materials: Acids react with most metals to release hydrogen gas which can form explosive mixtures in air. Water, alkaline solutions, metals, metal powder, carbides, chlorates, fuminates, nitrates, picrates, strong oxidizers, reducers, or combustible organics. Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides. Storage Temperature: Store above freezing point. Elevated temperatures will increase the corrosion rate of most metals.

Storage Requirements: Store packaged acid in a dry, well, ventilated location away from combustibles, oxidizers,
bases, or metallic powders. Storage tanks should be protected from water ingress, be well ventilated, and maintained structurally in a safe and reliable condition.

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

#### Exposure

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>SODIUM HYDROXIDE</td>
<td>OSHA</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>7647-14-5</td>
<td>SODIUM CHLORIDE</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>497-19-8</td>
<td>CARBONIC ACID DISODIUM SALT</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</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>1310-73-2</td>
<td>SODIUM HYDROXIDE</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>7647-14-5</td>
<td>SODIUM CHLORIDE</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>497-19-8</td>
<td>CARBONIC ACID DISODIUM SALT</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

### 8.2. Exposure controls

#### Respiratory

A NIOSH/MSHA approved air-purifying respirator equipped with acid gas/fume, dust, and mist cartridges for concentrations up to 10 mg 1m³. An air-supplied respirator if concentrations are higher or unknown.

#### Eyes

Tight-fitting chemical goggles and face shield.
Skin Impervious (Le., neoprene, PVC) gloves, coveralls, boots and/or other acid resistant protective clothing.

Engineering Controls Local exhaust ventilation required.

Other Work Practices Where there is a danger of spilling or splashing, acid resistant aprons or suits should be worn. Trouser legs should be worn outside (not tucked in) rubber boots. Safety showers and eyewash fountains should be installed in storage and handling areas. 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>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White Beads</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>77.67%: -11.2° C (+11.6° F); 93.19%: -29.5° C (-21.1° F); 98%: -1.1° C (30° F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>77.67%: 193° C (380° F); 93.19%: 276° C (529° F); 98%: 330° C (626° F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
| Upper/lower flammability or explosive limits| **Lower Explosive Limit:** 135°C (275°F): NA  
**Upper Explosive Limit:** 199°C (390°F): NA |
| Vapor pressure (Pa)                         | 77.67%: 1.2 mmhg; 93.19%: 0.0016 mmhg; 98%: 0.002 mmhg (at 40°C/102°F) |
| Vapor Density                               | 3.4, sulfuric acid component (Air = 1) |
| Specific Gravity                            | 77.67%: 1.7059; 93.19%: 1.8354; 98%: 1.8437 (at 15°C/60°F) |
| Solubility in Water                         | Insoluble                  |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured            |
| Auto-ignition temperature                   | (ASTM D 2155): Not combustible |
| Decomposition temperature                   | Not Measured               |
| Viscosity (cSt)                             | Not Measured               |
| Volatiles (% by weight)                     | NA                         |
| Octanol/Water Partition Coefficient         | NA                         |

9.2. Other information

No other relevant information.

### 10. Stability and reactivity

Page 6 of 10
10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
Reacts with some bases.

10.4. Conditions to avoid
Keep away from extreme heat and extreme cold.

10.5. Incompatible materials
Acids react with most metals to release hydrogen gas which can form explosive mixtures in air. Water, alkaline solutions, metals, metal powder, carbides, chlorates, fuminates, nitrates, picrates, strong oxidizers, reducers, or combustible organics.
Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.

10.6. Hazardous decomposition products
Oxides of sulfur at high temperatures. Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.

11. Toxicological information

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYDROXIDE (1310-73-2)</td>
<td>No data available</td>
<td>1350 mg/kg Rabbit;</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>SODIUM CHLORIDE (7647-14-5)</td>
<td>3000 mg/kg (rat)</td>
<td>10000 mg/kg (rabbit)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>CARBONIC ACID DISODIUM SALT (497-19-8)</td>
<td>4090 mg/kg</td>
<td>No data available</td>
<td>No data available</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>---</td>
<td>Not Applicable</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 bums 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>
</tbody>
</table>
12. Ecological information

12.1. Toxicity
The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

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>45.4 mg/l</td>
<td>40.4 mg/l</td>
<td>Not Available</td>
</tr>
<tr>
<td>SODIUM CHLORIDE (7647-14-5)</td>
<td>7650 mg/l</td>
<td>1000 mg/l</td>
<td>Not Available</td>
</tr>
<tr>
<td>CARBONIC ACID DISODIUM SALT (497-19-8)</td>
<td>300 mg/l</td>
<td>265 mg/l</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

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/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

NOTE: Container sizes with less than 2.2 lbs of Piranha are shipped as non-hazardous, ORM-d. Any container larger than 2.2 lbs need to be shipped as follows:

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>UN 1824</td>
<td>UN 1824</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>UN 1824 Sodium Hydroxide, Solution</td>
<td>UN 1824 Sodium Hydroxide, Solution</td>
</tr>
</tbody>
</table>

14.3. Transport hazard class(es)

- DOT Hazard Class: 8
- IMDG: 8
- Sub Class: Not Applicable
- Air Class: 8

14.4. Packing group

II

14.5. Environmental hazards

- IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

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
Sudden Release of Pressure: No
Reactive: Yes
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs: (lbs)

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Extremely Hazardous:

SODIUM HYDROXIDE

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Proposition 65 - Female Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
SODIUM HYDROXIDE

Pennsylvania RTK Substances (>1%):
SODIUM HYDROXIDE

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:
H314 Causes severe skin burns and eye damage.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user’s obligation to determine the conditions of safe use of the product.

End of Document