1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Trade name : TORNAX-S
Use : Industrial. See product bulletin for detailed information.
Company identification : See producer.
Type of product : Acidic cleaner.
Identification of the product : Liquid.

2. HAZARDS IDENTIFICATION

Risk Phrases : R34 : Causes burns.
Primary route of exposure : Skin and eyes contact.
Symptoms relating to use
- Inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
- Skin contact : Prolonged skin contact may cause a severe effect, progressing to a delayed burn. Causes burns.
- Eye contact : Redness, pain. Risk of serious damage to eyes. Blurred vision.
- Ingestion : Ingestion unlikely. Sore throat. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Contents</th>
<th>CAS No</th>
<th>EC No</th>
<th>Index No</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>20 - 40%</td>
<td>7664-38-2</td>
<td>231-633-2</td>
<td>015-011-00-6</td>
<td>-----</td>
</tr>
<tr>
<td>Non ionic surfactant - alcohol C10 ethoxylate</td>
<td>5 - 15%</td>
<td>160875-66-1</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>1 - 5%</td>
<td>112-34-6</td>
<td>203-961-6</td>
<td>603-096-00-8</td>
<td>-----</td>
</tr>
<tr>
<td>[[[phosphonomethyl]imino]bis(ethylenenitrilo)bis(methylene)]tetrakisphosphonic</td>
<td>1 - 5%</td>
<td>22042-96-2</td>
<td>244-751-4</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

First aid
- Inhalation: Remove victim to fresh air. Allow the victim to rest. Obtain medical attention if breathing difficulty persists.
- Skin contact: Remove contaminated clothing and shoes. Flush with plenty of water. Seek medical attention if ill effect or irritation develops.
- Eye contact: Rinse immediately with plenty of water. Seek medical attention immediately.
- Ingestion: Rinse mouth. DO NOT INDUCE VOMITING. If swallowed seek medical advice immediately and show this container or label.

5. FIRE-FIGHTING MEASURES

Flammable class: Not flammable.
Protection against fire: Wear proper protective equipment.
Special procedures: Exercise caution when fighting any chemical fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.
Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
After spillage and/or leakage: Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers. Dilute residues and flush.

7. HANDLING AND STORAGE

Precautions in handling and storage: Avoid all unnecessary exposure.
Storage: Protect from freezing. Keep at temperature not exceeding 50°C. Keep container closed when not in use.
Handling: Handle in accordance with good industrial hygiene and safety procedures. Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection
- Respiratory protection: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.
- Hand protection: Gloves.
- Skin protection: If skin contact or contamination of clothing is likely, protective clothing should be worn.
- Eye protection: Eye protection should only be necessary where liquid could be splashed or sprayed.
- Ingestion: Ingestion unlikely.
Industrial hygiene: Provide local exhaust or general room ventilation.
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless to light yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Acidic</td>
</tr>
<tr>
<td>pH value in distilled water</td>
<td>2.2 (1%)</td>
</tr>
<tr>
<td>Freezing point [°C]</td>
<td>-15</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>100</td>
</tr>
<tr>
<td>Density</td>
<td>1.22</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Complete</td>
</tr>
<tr>
<td>Flash point [°C]</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature [°C]</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

- **Hazardous decomposition products**: None under normal conditions.
- **Hazardous properties**: None under normal conditions.
- **Materials to avoid**: Avoid contact with: Strong alkalis.

### 11. TOXICOLOGICAL INFORMATION

- **Acute toxicity**: Corrosive to eyes and skin.
- **Rat oral LD50 [mg/kg]**: >2000
- **Rabbit dermal LD50 [mg/kg]**: No data available.
- **Rat inhalation LC50 [mg/l/4h]**: No data available.

### 12. ECOLOGICAL INFORMATION

- **WGK class (Germany)**: 1
- **Biodegradation [%]**: Readily biodegradable. >60% BOD, 28 days, Closed Bottle Test (OECD). The surfactant(s) contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent-manufacturer.

### 13. DISPOSAL CONSIDERATIONS

- **Disposal**: Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.

### 14. TRANSPORT INFORMATION

- **Hazard Label(s)**: C: Corrosive.
- **Proper shipping name**: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid), 8, III, ADR
- **UN No.**: 3264
- **H.I. nr**: 80
14. TRANSPORT INFORMATION (continued)

- ADR/RID
  : Group : III
  : Class : 8

15. REGULATORY INFORMATION

- Symbol(s)
  : C: Corrosive.

- R Phrase(s)
  : R34 : Causes burns.

- S Phrase(s)
  : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  : S28 : After contact with skin, wash immediately with water.
  : S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
  : S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

16. OTHER INFORMATION

Further information
: None.

List of relevant symbols (heading 3)
: C: Corrosive.
  : Irritant.
  : Harmful.

List of relevant R phrases (heading 3)
: R22 : Harmful if swallowed.
  : R34 : Causes burns.
  : R36 : Irritating to eyes.
  : R36/38 : Irritating to eyes and skin.
  : R41 : Risk of serious damage to eyes.

The contents and format of this SDS are in accordance with EEC Commission "REACH" Regulation, EC 1907/2006

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