Gardacid X
Version: 1. 13.06.2003

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING
   
   English
   Product information

   Commercial Product Name: Gardacid X
   
   Recommended use:
   Acid pickling agent for metal surfaces.

   Company: Chemetall plc
   Denbigh Road
   Bletchley Milton Keynes MK1 1PB

   Lead Organisation:
   Telephone: 01908 649333
   Telefax: 01908 373939
   Emergency telephone number: 01908 649333
   Contact person:

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS-No. EINECS-No. ELINCS-No.</th>
<th>Symbol(s):</th>
<th>R-phrase(s)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthophosphoric acid</td>
<td>7664-38-2 231-633-2</td>
<td>C</td>
<td>R34</td>
<td>25.00 - 50.00 %</td>
</tr>
<tr>
<td>Nitric Acid</td>
<td>7697-37-2 231-714-2</td>
<td>O, C</td>
<td>R 8, R35</td>
<td>2.50 - 10.00 %</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

   Risk advice to man and the environment

   Indication of danger: C Corrosive

   R34 Causes burns.

4. FIRST AID MEASURES

   General advice:
   Take off contaminated clothing and shoes immediately.

   Eye contact:
   In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

   Skin contact:
   Wash off immediately with soap and plenty of water.

   Inhalation:
Move to fresh air. If symptoms persist, call a physician.

**Ingestion:**
Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

### 5. FIRE-FIGHTING MEASURES

**Specific hazards during fire fighting:**
Combustion may cause: nitrogen oxides (NOx) oxides of phosphorus

**Special protective equipment for fire-fighters:**
In the event of fire, wear self-contained breathing apparatus.

**Suitable extinguishing media**
carbon dioxide (CO2), dry powder, water spray, alcohol-resistant foam

**Further information:**
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**
Use personal protective equipment.

**Environmental precautions:**
Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up**
Soak up with liquid binder (sand, kieselguhr, acid binder, universal binder). Take up mechanically and collect in suitable container for disposal. Ensure adequate ventilation.

### 7. HANDLING AND STORAGE

**Handling**

**Safe handling advice:**
Have eye wash bottle or eye rinse ready at the work place. Avoid contact with eyes. Provide sufficient air exchange and/or exhaust in work rooms.

**Advice on protection against fire and explosion:**
No special protective measures against fire required

**Storage**

**Requirements for storage areas and containers:**
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

**Further information:**
Avoid contact with metals.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Components with workplace control parameters**

<table>
<thead>
<tr>
<th>Orthophosphoric acid 7664-38-2</th>
<th>Value</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEL</td>
<td>2.00 mg/m3</td>
<td>2001</td>
<td>EH40 OES</td>
</tr>
<tr>
<td>TWA</td>
<td>1.00 mg/m3</td>
<td>05 2001</td>
<td>EU ELV</td>
</tr>
<tr>
<td>STEL</td>
<td>2.00 mg/m3</td>
<td>05 2001</td>
<td>EU ELV</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET according to EC directive 91/155/EC

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<th>Nitric Acid 7697-37-2</th>
<th>Value</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA</td>
<td>5.20 mg/m³  2.00 ppm</td>
<td>2001</td>
<td>EH40 OES</td>
</tr>
<tr>
<td>STEL</td>
<td>10.00 mg/m³  4.00 ppm</td>
<td>2001</td>
<td>EH40 OES</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection:
Not required; except in case of aerosol formation.

Hand protection:
Neoprene gloves

Eye protection:
tightly fitting safety goggles

Skin and body protection:
protective suit

Hygiene measures:
Avoid contact with the skin and the eyes. Keep away from food, drink and animal feedingstuffs. Take off contaminated clothing and shoes immediately. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: liquid
Colour: colourless
Odour: none

Change in physical state
Melting point/range: < -5 °C
Flash point: not applicable
Density: 1.35 g/cm³
Water solubility: completely miscible
pH: ca. 1
at: 100 g/l

10. STABILITY AND REACTIVITY

Conditions to avoid
To avoid thermal decomposition, do not overheat.

Materials to avoid
Contact with organic substances or other reducing agents can form mixed nitrous gases (toxic).
Incompatible with bases.

Hazardous decomposition products
nitrogen oxides (NOx)

Hazardous reactions:
Gives off hydrogen by reaction with metals.

Thermal decomposition:
11. TOXICOLOGICAL INFORMATION

Skin irritation:
Causes burns.

Eye irritation:
Causes burns.

Sensitization:
No sensitising effects are known.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Further information:
Do not flush into surface water or sanitary sewer system. Slightly water endangering.

13. DISPOSAL CONSIDERATIONS

Waste key for the unused product:
110105 acidic pickling solutions

Product:
Dispose of as special waste in compliance with local and national regulations

Contaminated packaging:
Dispose of as special waste in compliance with local and national regulations

14. TRANSPORT INFORMATION

Regulation: ADR
UN/ID No.: 3264
Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Nitric Acid
Packaging group: II
Class: 8

Regulation: RID
UN/ID No.: 3264
Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Nitric Acid
Packaging group: II
Class: 8

Regulation: IMDG
UN/ID No.: 3264
15. REGULATORY INFORMATION

Hazardous components which must be listed on the label:
- Orthophosphoric acid
- Nitric Acid

Labelling: 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.
S27 Take off immediately all contaminated clothing.
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 label where possible).
S60 This material and its container must be disposed of as hazardous waste.

Other regulations:
The product is classified and labelled in accordance with EC directives or respective national laws.

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2+3
R34 Causes burns.
R8 Contact with combustible material may cause fire.
R35 Causes severe burns.
R34 Causes burns.
The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.