1 Identification

- Product identifier
- Trade name: Rustex
- Article number: 15664
- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: DIAMOND CHEMICAL COMPANY, INC.
  - Corporate Headquarters
  - Union Ave & DuBois Street
  - East Rutherford, NJ 07073
  - USA
  - Telephone: 201-935-4300
- Information department: Product safety department
- Emergency telephone number: INFOTRAC - 1-800-535-5053

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS05 Corrosion
    - Skin Corr. 1B H314 Causes severe skin burns and eye damage.
    - Eye Dam. 1 H318 Causes serious eye damage.
  - GHS07
    - Acute Tox. 4 H302 Harmful if swallowed.
- Label elements
- GHS label elements
  - The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  - GHS05
  - GHS07
- Signal word Danger
- Hazard statements
  - Harmful if swallowed.
  - Causes severe skin burns and eye damage.
- Precautionary statements
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Do not breathe dusts or mists.
  - Wear eye protection / face protection.

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Trade name: Rustex

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
If swallowed: Call a poison center/doctor if you feel unwell.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Wash contaminated clothing before reuse.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)

- Health = 3
- Fire = 0
- Reactivity = 0

HMIS-ratings (scale 0 - 4)

- Health = 3
- Fire = 0
- Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

Components:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Prop. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2 phosphoric acid</td>
<td></td>
</tr>
<tr>
<td>1341-49-7 ammonium bifluoride</td>
<td></td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
- General information:
  Immediately remove any clothing soiled by the product.
  In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing:
  Do not induce vomiting; immediately call for medical help.
  Drink copious amounts of water and provide fresh air. Immediately call a doctor.
· Information for doctor:
  · Most important symptoms and effects, both acute and delayed
    No further relevant information available.
  · Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Fire-fighting measures

· Extinguishing media
  · Suitable extinguishing agents:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  · Special hazards arising from the substance or mixture
    No further relevant information available.
· Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions:
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  Dilute with plenty of water.
  Do not allow to enter sewers/ surface or ground water.
· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

· Handling:
  · Precautions for safe handling
    Ensure good ventilation/exhaustion at the workplace.
    Prevent formation of aerosols.
  · Information about protection against explosions and fires: No special measures required.
· Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles: No special requirements.
8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
  · Components with limit values that require monitoring at the workplace:
    | Substance                  | PEL Long-term: 1 mg/m³ | REL Short-term: 3 mg/m³ | REL Long-term: 1 mg/m³ | TLV Short-term: 3 mg/m³ | TLV Long-term: 1 mg/m³ |
    | 7664-38-2 phosphoric acid  |                      |                      |                      |                      |
· Additional information: The lists that were valid during the creation were used as basis.
· Exposure controls
· Personal protective equipment:
  · General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
· Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· Penetration time of glove material
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

  - **General Information**
    - **Appearance:**
      - Form: In water
      - Color: Green
    - **Odor:** Pungent
    - **Odour threshold:** Not determined.

  - **pH-value at 20 °C (68 °F):** 2

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100 °C (212 °F)

- **Flammable**
  - Not applicable.

- **Auto igniting:**
  - Product is not selfigniting.

- **Decomposition temperature:**
  - Not determined.

- **Danger of explosion:**
  - Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

- **Density at 20 °C (68 °F):** 1.14 g/cm³ (9.513 lbs/gal)

- **Relative density**
  - Not determined.

- **Vapour density**
  - Not determined.

- **Evaporation rate**
  - Not determined.

- **Solubility in / Miscibility with Water:** Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
Trade name: Rustex

10 Stability and reactivity

- Reactivity
- Chemical stability
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:** Strong caustic effect.
- **Sensitization** No sensitizing effects known.
- **Additional toxicological information:**
  - The product shows the following dangers according to internally approved calculation methods for preparations:
    - **Toxic**
    - **Corrosive**
    - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories**

| NTP (National Toxicology Program) | None of the ingredients is listed. |

| OSHA-Ca (Occupational Safety & Health Administration) | None of the ingredients is listed. |

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
Trade name: **Rustex**

- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 1 (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

<table>
<thead>
<tr>
<th></th>
<th>DOT</th>
<th>IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN-Number</strong></td>
<td>NA1760</td>
<td>UN1760</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Compounds, cleaning liquid (Ammonium Bifluoride) (Ammonium hydrogendifluoride)</td>
<td>Compounds, Cleaning Liquid,(Fluorosilicic Acid)</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td>DOT</td>
<td>IMDG, IATA</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td>8 Corrosive substances</td>
<td>8 Corrosive substances</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 8)
Trade name: Rustex

<table>
<thead>
<tr>
<th>· Label</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Packing group</td>
<td>DOT, IMDG, IATA II</td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>· Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td>Warning: Corrosive substances</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>80</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances):
  None of the ingredients is listed.
- Proposition 65
- Chemicals known to cause cancer:
  None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.
- Chemicals known to cause reproductive toxicity for males:
  None of the ingredients is listed.
- Chemicals known to cause developmental toxicity:
  None of the ingredients is listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency)
  None of the ingredients is listed.
Trade name: Rustex

· TLV (Threshold Limit Value established by ACGIH)
  1341-49-7 ammonium bifluoride

· NiOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.

· GHS label elements
  The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms
  ![GHS05](image) ![GHS07](image)

· Signal word: Danger
· Hazard statements
  Harmful if swallowed.
  Causes severe skin burns and eye damage.

· Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Do not breathe dusts or mists.
  Wear eye protection / face protection.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/
  shower.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy
  to do. Continue rinsing.
  Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  If swallowed: Call a poison center/doctor if you feel unwell.
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  Wash contaminated clothing before reuse.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for
any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
· Contact: Environmental Department
· Date of preparation / last revision 05/27/2015 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
  International Carriage of Dangerous Goods by Road)
Trade name: Rustex

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1