1 Identification of the substance/mixture and of the company/undertaking

· Product identifier
  · Trade name: SafeClean Plus

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

· Application of the substance / the preparation: Descaler for coffee and other foodservice equipment

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    Urnex Brands, Inc.
    700 Executive Blvd.
    Elmsford, NY 10523 USA
    Phone: +1-914-963-2042
    Fax: +1-914-963-2145
    Email: info@urnex.com

· Further information obtainable from:
  Chemservice GmbH
  Von-Steuben-Straße 13
  D-67549 Worms, Germany
  Tel.: +49 6241-95480-0
  Fax: +49 6241-95480-25
  Email: sds@chemservice-group.com

· Emergency telephone number:
  Tel.: 800-424-9300 (USA)
  Tel.: 001-703-527-3887 (INTERNATIONAL COLLECT ACCEPTED)

2 Hazards identification

· Classification of the substance or mixture
  · Classification according to Regulation (EC) No 1272/2008
    Skin Corr. 1B H314 Causes severe skin burns and eye damage.

· Label elements
  · Labelling according to Regulation (EC) No 1272/2008
    The product is classified and labelled according to the CLP regulation.
  · Hazard pictograms

  GHS05

· Signal word Danger

· Hazard-determining components of labelling:
  Aluminum Chloride Hexahydrate

· Hazard statements
  H314 Causes severe skin burns and eye damage.

· Precautionary statements
  P260 Do not breathe dust/fume/gas/mist/vapours/spray.
  P303+P361+P335 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P310 Immediately call a POISON CENTER or doctor/physician.
  P405 Store locked up.

(Contd. on page 2)
Trade name: SafeClean Plus

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not determined
  - vPvB: Not determined

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Dangerous components:
  - 7784-13-6 Aluminum Chloride Hexahydrate < 50%
    - Skin Corr. 1B, H314; Acute Tox. 4, H302
  - 5949-29-1 2-hydroxy-1,2,3-propanetricarboxylic acid,monohydrate < 50%
    - Eye Irrit. 2, H319
  - 68424-85-1 Alkyl(40%C12,50%C14,10%C16)Dimethylbenzyl Ammonium Chloride < 1.0%
    - Skin Corr. 1B, H314; Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H319

4 First aid measures

- Description of first aid measures
- General information:
  - Take affected persons out of danger area and lay down.
  - Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation continues, consult a doctor.
- After eye contact:
  - Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
  - Rinse out mouth and then drink plenty of water.
  - Seek immediate medical advice.
- 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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture
  - Carbon monoxide (CO)
  - Under certain fire conditions, traces of other toxic gases cannot be excluded.
- Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.
- Additional information
  - Cool endangered receptacles with water spray.
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Ensure adequate ventilation
  Wear protective clothing.
  Avoid formation of dust.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  Pick up mechanically.
  Ensure adequate ventilation.
  Dispose of the material collected according to regulations.

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.
    Any unavoidable deposit of dust must be regularly removed.
  - Information about fire and explosion protection: Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
  - Information about storage in one common storage facility: Store away from oxidizing agents.
- Further information about storage conditions:
  Keep container tightly sealed.
  Store under lock and key and out of the reach of children.
  Protect from humidity and water.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Control parameters
- Ingredients with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Do not inhale dust / smoke / mist.
    Immediately remove all soiled and contaminated clothing.
    Avoid contact with the eyes and skin.
    The usual precautionary measures are to be adhered to when handling chemicals.
  - Respiratory protection: Not necessary if room is well-ventilated.
  - Protection of hands:
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
• **Material of gloves**
  - Natural rubber, NR
  - Nitrile rubber, NBR

• **Penetration time of glove material**
  - The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

• **Eye protection**: Safety glasses

• **Body protection**: Protective work clothing

### 9 Physical and chemical properties

- **Appearance:**
  - **Form**: Solid
  - **Colour**: According to product specification
  - **Odour**: Characteristic

- **pH-value (10 g/l) at 20°C**: 2

- **Change in condition**
  - **Melting point/Melting range**: Not determined.
  - **Boiling point/Boiling range**: Not determined.

- **Flash point**: Not determined.

- **Self-igniting**: Product is not self-igniting.

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

- **Density**: Not determined.

- **Solubility in / Miscibility with water**: Soluble.

- **Solvent content**
  - **Organic solvents**: 0.0 %
  - **Solids content**: 100.0 %

- **Other information**: No further relevant information available.

### 10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided**
  - No decomposition if used and stored according to specifications.

- **Possibility of hazardous reactions**
  - Reacts with reducing agents.
  - Reacts with strong acids and oxidizing agents.

- **Conditions to avoid**: No further relevant information available.

- **Incompatible materials**: Strong oxidizing agents

- **Hazardous decomposition products**: No dangerous decomposition products known.
11 Toxicological information

· Information on toxicological effects
· Acute toxicity:

· LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Chloride Hexahydrate</td>
<td>1990 mg/kg (Mouse)</td>
<td>11700 mg/kg (Rat)</td>
</tr>
<tr>
<td>2-hydroxy-1,2,3-propane tricarboxylic acid, monohydrate</td>
<td>3311 mg/kg (Rat)</td>
<td>5040 mg/kg (Mouse)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
· on the skin: Irritant to skin and mucous membranes.
· on the eye: Irritating effect.
· Sensitization: No sensitizing effects known.

12 Ecological information

· Toxicity
· Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50 (96h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-hydroxy-1,2,3-propane tricarboxylic acid, monohydrate</td>
<td>440-706 mg/l (Fish)</td>
</tr>
</tbody>
</table>

· Persistence and degradability: No further relevant information available.
· Behaviour in environmental systems:
· Bioaccumulative potential: No further relevant information available.
· Mobility in soil: No further relevant information available.
· Additional ecological information:
· General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· Results of PBT and vPvB assessment
· PBT: Not determined
· vPvB: Not determined
· Other adverse effects: No further relevant information available.

13 Disposal considerations

· Waste treatment methods
· Recommendation: Smaller quantities can be disposed of with household waste.
· Uncleaned packaging
· Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
· ADR, IMDG, IATA: UN3261
### Trade name: SafeClean Plus

| · UN proper shipping name | 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Aluminum Chloride Hexahydrate) |
| · ADR |  |
| · IMDG, IATA | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Aluminum Chloride Hexahydrate) |

| · Transport hazard class(es) | ADR, IMDG, IATA |
| · Class | 8 Corrosive substances. |
| · Packing group | II |

| · Environmental hazards: |  |
| · Marine pollutant: | No |

| · Special precautions for user | Warning: Corrosive substances. |
| · Danger code (Kemler): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Acids |

| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |

| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · ADR |  |
| · Tunnel restriction code | E |

| · UN "Model Regulation": | UN3261, CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Aluminum Chloride Hexahydrate), 8, II |

### 15 Regulatory information

- **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.

- **Relevant phrases**
  - H302 Harmful if swallowed.
  - H314 Causes severe skin burns and eye damage.
  - H319 Causes serious eye irritation.

- **Department issuing SDS:**

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Trade name: SafeClean Plus

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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)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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