**SECTION 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION**

**Product Name:** Titanium sulfate 30% Solution  
**Product Code:** T13535  
**Supplier:** Pfaltz & Bauer, Inc.  
172 E. Aurora Street  
Waterbury, CT 06708 USA  
**Phone:** 203 574-0075  
**Fax:** 203 574-3181  
**Emergency Phone:** CHEMTREC, US: 1-800-424-9300  
CHEMTREC, International: 1-703-527-3887

**SECTION 2: HAZARDS IDENTIFICATION**

**Statements of Hazard:** Corrosive  
**Acute Health Hazard:** Corrosive to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, inhalation or skin absorption.  
**Chronic Health Hazard:** Not Available  
**HMIS Rating:** H:3 F:0 P:0  
**NFPA Rating:** H:3 F:0 R:0  

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

**Pictogram:**

**Signal Word:** Danger  
**Hazard Statement(s):**  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  

**Precautionary Statement(s):**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.

SECTION 3: COMPOSITION/INFORMATION on INGREDIENTS

Chemical Name: Titanium sulfate
Synonyms: Titanium(IV) sulfate solution
CAS Number: 13693-11-3
MDL Number: MFCD00150567
EINECS Number: 237-215-6
Beilstein Registry Number: Not Available
Molecular Formula: TiOSO₄.H₂SO₄.8H₂O
Molecular Weight: 239.99
Content: 30%
Notes: Aqueous solution

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Move to a fresh air environment. Contact a physician if breathing becomes difficult.

SECTION 5: FIRE FIGHTING MEASURES
Flash Point: Not Available

Explosion Limits: Lower: Not Available
Upper: Not Available

Auto Ignition Temperature: Not Available

Extinguishing Media: Carbon dioxide, dry chemical powder, alcohol-resistant foam or water spray.

Protective Equipment: Wear self-contained respirator and fully protective impervious suit.

Specific Hazards: May emit hazardous fumes under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES


Environmental Protection: Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite. Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING and STORAGE

Handling: Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.

Storage: Store in a tightly closed container in a dry, well-ventilated place.

Sensitivities: Not Available

Storage Temperature: 15 – 30 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash facility in your vicinity.

Skin: Wear impervious gloves and protective clothing.

Respiratory: Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.
**Exposure Limits:**

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>ACGIH</td>
<td>TWA</td>
<td>Not Available</td>
</tr>
<tr>
<td>USA</td>
<td>OSHA</td>
<td>STEL</td>
<td>Not Available</td>
</tr>
<tr>
<td>USA</td>
<td>OSHA</td>
<td>PEL</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**SECTION 9: PHYSICAL and CHEMICAL PROPERTIES**

- **Appearance:** Liquid solution
- **Odor:** Not Available
- **Melting Point:** Not Available
- **Boiling Point:** Not Available
- **pH Value:** Not Available
- **Density:** 1.33 g/cm\(^3\)
- **Refractive Index**, \(n_{D}^{20}\): Not Available
- **Viscosity:** Not Available
- **Solubility in Water:** Not Available
- **Vapor Pressure:** Not Available
- **Vapor Density** (Air = 1): Not Available

**SECTION 10: STABILITY and REACTIVITY**

- **Stability:** Stable under normal temperatures and pressures.
- **Incompatibility:** Strong oxidizing agents.
- **Conditions to Avoid:** Heat, Flame, Sparks, other ignition sources
- **Hazardous Decomposition Products:** Titanium oxides, Sulfur oxides

**SECTION 11: TOXICOLOGICAL INFORMATION**

- **RTECS Reference:** Not Available
- **Target Organs:** Teeth, Lungs, Cardiovascular system
- **Toxicity Data:** Not Available
- **Skin corrosion/irritation:** Not Available
- **Serious eye damage/irritation:** Not Available
- **Carcinogenicity:** Not Available

**SECTION 12: ECOLOGICAL INFORMATION**

- **Toxicity:** Not Available
- **Persistence and degradability:** Not Available
Bioaccumulative potential: Not Available
Mobility in soil: Not Available
PBT and vPvB assessment: Not Available
Other adverse effects: Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
DOT UN Number: UN3264
DOT Hazard Class: Class 8
DOT Packing Group: III

IMDG Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
IMDG UN Number: UN3264
IMDG Hazard Class: Class 8
IMDG Packing Group: III

IATA Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
IATA UN Number: UN3264
IATA Hazard Class: Class 8
IATA Packing Group: III

SECTION 15: REGULATORY INFORMATION

United States:
Toxic Substance Control Act (TSCA): Listed
Superfund Amendments and Reauthorization Act (SARA 302): Not listed
Superfund Amendments and Reauthorization Act (SARA 311/312): Not listed
Superfund Amendments and Reauthorization Act (SARA 313): Not listed

European Union:
European Inventory of Existing Chemical Substances (EINECS): No. 237-215-6
Hazard Codes: C
Risk Statements: 31-34

Canada
Canadian Domestic Substances List (DSL): Listed
Canadian Domestic Substances List (NDSL): Not listed
SECTION 16: OTHER INFORMATION

Date Prepared: 01/10/2013 MH

The information above is presented in good faith. It is believed to be accurate and represents the best information currently available to us. However we make no warranty with respect to such information and we assume no liability resulting from its use. The user should consider this information as a supplement to other information that may be available and make independent judgment to ensure proper use to protect the health and safety of employees and the environment. Pfaltz and Bauer shall not be held liable for any damage resulting from handling or from contact with the above product.