

## SAFETY DATA SHEET

Preparation Date: 8/12/2015

Revision Date: 8/12/2015

Revision Number: G1

### 1. IDENTIFICATION

**Product identifier**

**Product code:** S1812  
**Product Name:** STANNIC CHLORIDE, PENTAHYDRATE, REAGENT

**Other means of identification**

**Synonyms:** Tin (IV) chloride, pentahydrate  
 Tetrachlorostannane pentahydrate  
**CAS #:** 10026-06-9  
**RTECS #** XP8870000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Stabilizer. Manufacture of substances. Research and Development.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |                           |
|--|---------------------------|
| Skin corrosion/irritation                        | Category 1 Sub-category B |
| Serious eye damage/eye irritation                | Category 1                |
| Specific target organ toxicity (single exposure) | Category 3                |

**Label elements**

## Danger

### Hazard statements

Causes severe skin burns and eye damage  
May cause respiratory irritation



### Hazards not otherwise classified (HNOC)

Reacts with water to release toxic and corrosive gases

### Other hazards

Reacts with water to evolve heat

### Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Use only outdoors or in a well-ventilated area

### Precautionary Statements - Response

*Immediately call a POISON CENTER or doctor/physician*

*Specific treatment (see .? on this label)*

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 or doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

### Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components                                   | CAS-No.    | Weight % | Trade Secret |
|--|------------|----------|--------------|
| Stannic Chloride, Pentahydrate<br>10026-06-9 | 10026-06-9 | 100      | *            |

## 4. FIRST AID MEASURES

### First aid measures

#### **General Advice:**

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

#### **Skin Contact:**

Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

#### **Eye Contact:**

Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

#### **Inhalation:**

WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, give oxygen. Immediate medical attention is required.

#### **Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

### Most important symptoms and effects, both acute and delayed

#### **Symptoms**

Corrosive to the eyes and may cause severe damage including blindness. Possible corrosion and tissue destruction of the esophagus and digestive tract. Causes severe skin burns. May affect the liver. May affect behavior/central nervous system. Severe irritation or burns of the respiratory tract and possible lung injury. Inorganic tin salts are poorly absorbed into the body. When parenterally administered tin salts are highly toxic. Tin oxide inhaled as a dust or fume leads to a benign pneumoconiosis with no sign of interference with pulmonary function. Deposited dust appears nodular with the particles being mostly extracellular. No necrosis, foreign-body giant-cell reaction, or collagen formation has been seen. Tin salts that have gained access to the blood stream are highly toxic and produce neurologic damage and paralysis. With most common tin salts, the toxicity profile is complicated by hydrolysis in body fluids producing unphysiologic pH values. The reported symptoms of hyperemia, vascular changes with bleeding in the central nervous system, liver, heart, and other organs may be due to tin itself or to the unphysiological pH changes. Ingestion produces vomiting due to the gastric irritation from the activity and astringency of tin compounds. Injection of inorganic tin salts produces diarrhea, muscle paralysis, and twitching. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting..

### Indication of any immediate medical attention and special treatment needed

#### **Notes to Physician:**

Treat symptomatically

#### **Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

#### **Suitable Extinguishing Media:**

The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

#### **Unsuitable Extinguishing Media:**

No information available.

### Specific hazards arising from the chemical

**Hazardous Combustion Products:** If involved in a fire, the following can be released: Hydrogen chloride, Tin/Tin oxides

**Specific hazards:** Not easily combustible  
Not considered to be an explosion hazard  
When heated to decomposition it emits toxic fumes of hydrogen chloride

### Special Protective Actions for Firefighters

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains. Do not let this chemical enter the environment.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Deliquescent. Moisture sensitive. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

#### **Incompatible Materials:**

Ethylene oxide. Potassium. Sodium. Alcohols. Amines. Strong acids. Strong oxidizing agents. Water.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

| Components                                   | OSHA                            | NIOSH                           | ACGIH                           | AIHA WHEEL |
|--|---------------------------------|---------------------------------|---------------------------------|------------|
| Stannic Chloride, Pentahydrate<br>10026-06-9 | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWA (as Sn) | None       |

##### Canada

| Components                                   | Alberta                         | British Columbia                | Ontario                         | Quebec                            |
|--|---------------------------------|---------------------------------|---------------------------------|-----------------------------------|
| Stannic Chloride, Pentahydrate<br>10026-06-9 | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWAEV (as Sn) |

##### Australia and Mexico

| Components                                   | Australia                       | Mexico  |
|--|---------------------------------|---|
| Stannic Chloride, Pentahydrate<br>10026-06-9 | 2 mg/m <sup>3</sup> TWA (as Sn) | 2 mg/m <sup>3</sup> TWA (as Sn)<br>4 mg/m <sup>3</sup> STEL (as Sn) |

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

- Eye protection:** Goggles.
- Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves. Boots.
- Respiratory protection:** Effective dust mask. or. Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent..
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |  |   |
|---|--|---|
| <b>Physical state:</b><br>Solid.                                | <b>Appearance:</b><br>Crystals. Lumps.                         | <b>Color:</b><br>White. Off-white. Light yellow.                            |
| <b>Odor:</b><br>Slight hydrochloric acid odor.                  | <b>Taste</b><br>No information available                       | <b>Formula:</b><br>SnCl <sub>4</sub> .5H <sub>2</sub> O                     |
| <b>Molecular/Formula weight:</b><br>350.58 g/mol                | <b>Flammability:</b><br>Not combustible                        | <b>Flash point (°C):</b><br>No data available                               |
| <b>Flashpoint (°C/°F):</b><br>No information available.         | <b>Flash Point Tested according to:</b><br>Not available       | <b>Autoignition Temperature (°C/°F):</b><br>No information available        |
| <b>Lower Explosion Limit (%):</b><br>No information available   | <b>Upper Explosion Limit (%):</b><br>No information available  | <b>pH:</b><br>No information available                                      |
| <b>Melting point/range(°C/°F):</b><br>56°C/133°F                | <b>Boiling point/range(°C/°F):</b><br>No information available | <b>Decomposition temperature(°C/°F):</b><br>56°C/133°F                      |
| <b>Bulk density:</b><br>No information available                | <b>Density (g/cm<sup>3</sup>):</b><br>2.04                     | <b>Specific gravity:</b><br>No information available                        |
| <b>Vapor pressure @ 20°C (kPa):</b><br>No information available | <b>Evaporation rate:</b><br>No information available           | <b>Vapor density:</b><br>No information available                           |
| <b>VOC content (g/L):</b><br>No information available           | <b>Odor threshold (ppm):</b><br>No information available       | <b>Partition coefficient (n-octanol/water):</b><br>No information available |
| <b>Viscosity:</b><br>No information available                   | <b>Miscibility:</b><br>No information available                | <b>Solubility:</b><br>Very soluble in water<br>Soluble in Alcohol           |

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with ethylene oxide

Stannic chloride reacts with Turpentine, producing heat and sometimes flame

A mixture of Potassium or Sodium and Stannic Chloride produces a strong explosion on impact

Ethyl, isopropyl, butyl, benzyl, & triphenylmethyl nitrates in contact with tin(IV) chloride interact violently with gas evolution

Contact of stannic chloride with alcohols, & amines may cause fires and explosions

Mixtures of nitrobenzene and tin(IV) chloride undergo decomposition with gas evolution above 160 deg

Reactive with strong oxidizing agents

Reactive with strong acids

Reacts with water

Exothermic reaction with water

Reacts with water to release toxic and corrosive gases

### Chemical stability

#### **Stability:**

Stable under recommended storage conditions

#### **Possibility of Hazardous Reactions:**

Hazardous polymerization does not occur

#### **Conditions to avoid:**

Exposure to moisture. Exposure to water. Excess Heat. Incompatible materials.

#### **Incompatible Materials:**

Ethylene oxide. Potassium. Sodium. Alcohols. Amines. Strong acids. Strong oxidizing agents. Water.

**Hazardous decomposition products:** Tin oxides. Hydrogen chloride.

### Other Information

**Product code:** S1812

**Product name:** STANNIC CHLORIDE,  
PENTAHYDRATE, REAGENT

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**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**

Skin. Ingestion. Inhalation. Eyes.

### Acute Toxicity

### Component Information

*Stannic Chloride, Pentahydrate - 10026-06-9*

**LD50/oral/rat** = No information available

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = No information available

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

### Product Information

**LD50/oral/rat =**

**VALUE- Acute Tox Oral** = No information available

**LD50/oral/mouse =**

**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor** = No information available

**VALUE - Gas** = No information available

**VALUE - Dust/Mist** = No information available

### Symptoms

**Skin Contact:** Corrosive. Causes severe irritation and burns.

**Eye Contact:** Causes severe irritation and burns.

**Inhalation** Causes severe irritation of the respiratory tract and mucous membranes with possible chemical burns. Symptoms may include burning sensation, coughing and sore throat.

**Ingestion** May cause gastrointestinal tract irritation. A low toxicological risk is generally associated with ingestion of inorganic tin. This is due largely to the low degree of absorption and low tissue retention. However, when tin compounds have gained access to the blood stream the following symptoms may occur: metallic taste, vomiting, diarrhea or constipation, abdominal pain, nausea, fatigue, headache.

**Aspiration hazard** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** No information available

**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic

| Components                     | IARC       | ACGIH - Carcinogens | NTP        | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|--------------------------------|------------|---------------------|------------|------------------------|--|--|
| Stannic Chloride, Pentahydrate | Not listed | Not listed          | Not listed | Not listed             | Not listed                                     | Not listed                                     |

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available  
**STOT - repeated exposure** No information available  
**Target Organs:** No information available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Stannic Chloride, Pentahydrate - 10026-06-9*

**Water Flea Data:** 14.30.4 mg/L EC50 Daphnia magna 48h static

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available



### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

##### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

##### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal Do not re-use empty containers Dispose of as unused product.

| Components                     | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|--------------------------------|------------------------|------------------------|------------------------|------------------------|
| Stannic Chloride, Pentahydrate | None                   | None                   | None                   | None                   |

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG No:** 154  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available

#### Symbol(s):

#### TDG (Canada)

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

#### ADR

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Packing Group:** III  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

#### IMO / IMDG

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III

## 14. TRANSPORT INFORMATION

**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**EMS:** F-A  
**MFAG:** No information available  
**Maximum Quantity:** No information available

### RID

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Classification Code:** No information available  
**Description:** No information available

### ICAO

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** No information available

### IATA

**UN-No:** UN2440  
**Proper Shipping Name:** Stannic chloride pentahydrate  
**Hazard Class:** 8  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 8L  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

| Components                            | U.S. TSCA  | KOREA KECL  | Philippines (PICCS) | Japan ENCS      | CHINA   | Australia (AICS) | EINECS-No.  |
|---------------------------------------|------------|-------------|---------------------|-----------------|---------|------------------|-------------|
| <i>Stannic Chloride, Pentahydrate</i> | Not Listed | Not present | Present             | Present (1)-260 | Present | Present          | Not present |

### U.S. Regulations

*Stannic Chloride, Pentahydrate*

**New Jersey RTK Hazardous Substance List:** 1731

**California Directors List of Hazardous Substances:** Present (listed as Tin compounds)

### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

| Components                     | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|--------------------------------|------------|------------------------|----------------------------|-------------------------------|
| Stannic Chloride, Pentahydrate | Not Listed | Not Listed             | Not Listed                 | Not Listed                    |

**Product code:** S1812

**Product name:** STANNIC CHLORIDE,  
PENTAHYDRATE, REAGENT

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**CERCLA/SARA**

| Components                     | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting <i>de minimis</i> |
|--------------------------------|---|---|--|---------------------------------|---|
| Stannic Chloride, Pentahydrate | None  | None  | None   | None                            | None                                      |

**U.S. TSCA**

| Components                     | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|--------------------------------|---|--|
| Stannic Chloride, Pentahydrate | Not Applicable  | Not Applicable                         |

**Canada****WHMIS hazard class:**

E Corrosive material

Stannic Chloride, Pentahydrate

E

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

| Components                     | Canada (DSL) | Canada (NDSL) |
|--------------------------------|--------------|---------------|
| Stannic Chloride, Pentahydrate | Not Listed   | Not Listed    |

| Components                     | CEPA Schedule I - Toxic Substances | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
|--------------------------------|------------------------------------|---|
| Stannic Chloride, Pentahydrate | Not listed                         | Not listed  |

**EU Classification****R-phrase(s)**

R34 - Causes burns.

R37 - Irritating to respiratory system.

**S -phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

| Components                     | Classification | Concentration Limits: | Safety Phrases |
|--------------------------------|----------------|-----------------------|----------------|
| Stannic Chloride, Pentahydrate |                | No information        |                |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

C - Corrosive.

Xi - Irritant.

**16. OTHER INFORMATION**

**Preparation Date:** 8/12/2015  
**Revision Date:** 8/12/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**