Material Safety Data Sheet
Nicotine Sulfate (40% in aqueous solution) MSDS

Section 1: Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Nicotine Sulfate (40% in aqueous solution)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Codes:</td>
<td>SLN2404</td>
</tr>
<tr>
<td>CAS#:</td>
<td>Mixture.</td>
</tr>
<tr>
<td>RTECS:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>TSCA: TSCA 8(b) inventory:</td>
<td>Nicotine Sulfate; Water</td>
</tr>
<tr>
<td>CI#:</td>
<td>Not available.</td>
</tr>
<tr>
<td>Synonym:</td>
<td>Chemical Name: Nicotine Sulfate (40% in aqueous solution)</td>
</tr>
<tr>
<td>Chemical Formula:</td>
<td>C10-H14-N2.0.5HH2-S-O4</td>
</tr>
</tbody>
</table>

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine Sulfate</td>
<td>65-30-5</td>
<td>40</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>60</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Nicotine Sulfate: ORAL (LD50): Acute: 50 mg/kg [Rat]. 75 mg/kg [Duck]. 75 mg/kg [Pigeon]. DERMAL (LD50): Acute: 285 mg/kg [Rat]. 50 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of eye contact (irritant, corrosive), of ingestion. Slightly hazardous in case of inhalation (lung irritant). Non-corrosive for skin. Non-permeator by skin. Non-hazardous in case of inhalation. Severe over-exposure can result in death.

Potential Chronic Health Effects:
Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Development toxin [POSSIBLE] [Nicotine Sulfate]. The substance may be toxic to lungs, upper respiratory tract, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated
exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

### Section 4: First Aid Measures

#### Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

#### Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

#### Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

#### Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

#### Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

#### Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

#### Serious Ingestion:
Not available.

### Section 5: Fire and Explosion Data

- **Flammability of the Product**: Non-flammable.
- **Auto-Ignition Temperature**: Not applicable.
- **Flash Points**: Not applicable.
- **Flammable Limits**: Not applicable.
- **Products of Combustion**: Not available.
- **Fire Hazards in Presence of Various Substances**: Not applicable.
- **Explosion Hazards in Presence of Various Substances**: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
- **Fire Fighting Media and Instructions**: Not applicable.
- **Special Remarks on Fire Hazards**: Not available.
- **Special Remarks on Explosion Hazards**: Not available.

### Section 6: Accidental Release Measures

#### Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:**
Poisonous liquid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

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**Section 7: Handling and Storage**

**Precautions:**
Keep locked up. Keep container dry. Do not ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

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**Section 8: Exposure Controls/Personal Protection**

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:**
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

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**Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** Not applicable.

**Color:** Not available.

**pH (1% soln/water):** Neutral.

**Boiling Point:** The lowest known value is 100°C (212°F) (Water).

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Weighted average: 1.06 (Water = 1)

**Vapor Pressure:** The highest known value is 2.3 kPa (@ 20°C) (Water).

**Vapor Density:** The highest known value is 0.62 (Air = 1) (Water).

**Vollatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** The product is equally soluble in oil and water.

**Ionicity (in Water):** Not available.
Dispersion Properties:
Dispersed in methanol, n-octanol. See solubility in water, methanol, n-octanol.

Solubility:
Easily soluble in cold water. Soluble in hot water, methanol, n-octanol.

Section 10: Stability and Reactivity Data

Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Eye contact. Ingestion.
Toxicity to Animals:
Acute oral toxicity (LD50): 125 mg/kg (Rat) (Calculated value for the mixture). Acute dermal toxicity (LD50): 125 mg/kg (Rabbit) (Calculated value for the mixture).

Chronic Effects on Humans:
DEVELOPMENTAL TOXICITY: Classified Development toxin [POSSIBLE] [Nicotine Sulfate]. Contains material which may cause damage to the following organs: lungs, upper respiratory tract, central nervous system (CNS).

Other Toxic Effects on Humans:

Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.
BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations
Waste Disposal:

Section 14: Transport Information

**DOT Classification:** CLASS 6.1: Poisonous material.

**Identification:** Nicotine Sulfate, Solution (Nicotine Sulfate) UNNA: 1658 PG: II

**Special Provisions for Transport:** Not available.

Section 15: Other Regulatory Information

**Federal and State Regulations:**
Pennsylvania RTK: Nicotine Sulfate Florida: Nicotine Sulfate Massachusetts RTK: Nicotine Sulfate New Jersey: Nicotine Sulfate TSCA 8(b) inventory: Nicotine Sulfate; Water TSCA 8(d) H and S data reporting: Nicotine Sulfate: June 1999 SARA 302/304/311/312 extremely hazardous substances: Nicotine Sulfate CERCLA: Hazardous substances: Nicotine Sulfate: 1 lbs. (0.4536 kg);


**Other Classifications:**

**WHMIS (Canada):**
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

**DSCL (EEC):**
R26/27/28- Very toxic by inhalation, in contact with skin and if swallowed.

**HMIS (U.S.A.):**
- Health Hazard: 2
- Fire Hazard: 0
- Reactivity: 0
- Personal Protection: h

**National Fire Protection Association (U.S.A.):**
- Health: 2
- Flammability: 0
- Reactivity: 0
- Specific hazard:

**Protective Equipment:**
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/10/2005 10:58 AM

**Last Updated:** 05/21/2013 12:00 PM
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