1. Product Identification

**Synonyms:** Potassium sulfocyanate; Potassium thiocyanide; Thiocyanic acid, potassium salt; Potassium isothiocyanate

**CAS No.:** 333-20-0

**Molecular Weight:** 97.18

**Chemical Formula:** KSCN

**Product Codes:**
- J.T. Baker: 3326, 5578
- Macron: 7168

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Thiocyanate</td>
<td>333-20-0</td>
<td>90 - 100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

**Emergency Overview**

**WARNING!** HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

**SAF-T-DATA(tm) Ratings** (Provided here for your convenience)

- **Health Rating:** 2 - Moderate (Life)
- **Flammability Rating:** 0 - None
- **Reactivity Rating:** 1 - Slight
- **Contact Rating:** 2 - Moderate
- **Lab Protective Equip:** GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
- **Storage Color Code:** Green (General Storage)
Potential Health Effects
----------------------------------

**Inhalation:**
Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

**Ingestion:**
May cause psychosis, vomiting, disorientation, weakness, low blood pressure, convulsions and death which may be delayed. The probable lethal dose is between 15-30 grams.

**Skin Contact:**
Causes irritation to skin. Symptoms include redness, itching, and pain.

**Eye Contact:**
Causes irritation, redness, and pain.

**Chronic Exposure:**
Prolonged or repeated skin exposure may cause dermatitis. Repeated ingestion of small amounts may cause weakness, confusion, central nervous system effects, nausea and skin eruptions.

**Aggravation of Pre-existing Conditions:**
No information found.

4. First Aid Measures

**Inhalation:**
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**
Wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

**Fire:**
Not considered to be a fire hazard.

**Explosion:**
Not considered to be an explosion hazard.

**Fire Extinguishing Media:**
Use any means suitable for extinguishing surrounding fire.

**Special Information:**
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. May emit toxic and flammable fumes of cyanide if involved in a fire.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.
7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from oxidizing materials. Store in the dark. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
None established.

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.
WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:
Colorless, deliquescent crystals.

Odor:
Odorless.

Solubility:
Very soluble in water.

Density:
1.89

pH:
No information found.

% Volatiles by volume @ 21C (70F):
0

Boiling Point:
500C (932F)

Melting Point:
173C (343F)

Vapor Density (Air=1):
No information found.

Vapor Pressure (mm Hg):
No information found.

Evaporation Rate (BuAc=1):
No information found.
10. Stability and Reactivity

**Stability:**
Stable under ordinary conditions of use and storage. Slowly decomposes on exposure to light.

**Hazardous Decomposition Products:**
Burning may produce nitrogen oxides, sulfur compounds, and possibly cyanides.

**Hazardous Polymerization:**
Will not occur.

**Incompatibilities:**
Strong oxidizers, active halogen compounds.

**Conditions to Avoid:**
Light and incompatibles.

11. Toxicological Information

Oral rat LD50: 854 mg/kg. Investigated as a mutagen, reproductive effector.

---Cancer Lists---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known</th>
<th>Anticipated</th>
<th>IARC Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Thiocyanate (333-20-0)</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

12. Ecological Information

**Environmental Fate:**
No information found.

**Environmental Toxicity:**
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

---Chemical Inventory Status - Part 1---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
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</thead>
<tbody>
<tr>
<td>Potassium Thiocyanate (333-20-0)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---Chemical Inventory Status - Part 2---

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Korea</th>
<th>DSL</th>
<th>NDSL</th>
<th>Phil.</th>
</tr>
</thead>
</table>
Potassium Thiocyanate (333-20-0)                          Yes  Yes  No   Yes

--- Federal, State & International Regulations - Part 1 ---
- SARA 302 -                  - SARA 313 -

Ingredient                     RQ  TPQ   List   Chemical Catg.
Potassium Thiocyanate (333-20-0)  No  No   Yes   No

--- Federal, State & International Regulations - Part 2 ---
- RCRA -                  - TSCA -

Ingredient                     CERCLA   261.33   8(d)
Potassium Thiocyanate (333-20-0)  No     No     No

Chemical Weapons Convention: No  TSCA 12(b): No  CDTA: No
SARA 311/312: Acute: Yes   Chronic: Yes Fire: No Pressure: No
Reactivity: No     (Pure / Solid)

Australian Hazchem Code: None allocated.
Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and
the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0
Label Hazard Warning:
WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND
RESPIRATORY TRACT.
Label Precautions:
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.
Avoid breathing dust.
Keep container closed.
Use only with adequate ventilation.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to
an unconscious person. In case of contact, wipe off excess material from skin then immediately flush eyes or
skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing
before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult,
give oxygen. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
No Changes.
Disclaimer:

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Prepared by: Environmental Health & Safety