Addendum to Material Safety Data Sheet

**REGULATORY STATUS**

Hazard Categories for SARA Section 311/312 Reporting

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(Chem.Key: OR239)

Product or Components of Product:

| 4-PICOLINE (108-89-4) |

SARA EHS Sect. 302 RQ (lbs.) | SARA Section 313 Chemicals Name List | Chemical Category | CERCLA Sec. 103 RO (lbs.) | RCRA Sec. 261.33 |
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**SARA Section 302 EHS RQ:** Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

**SARA Section 302 EHS TPQ:** Threshold Planning Quantity of Extremely Hazardous Substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

**SARA Section 313 Chemicals:** Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

**CERCLA Sec. 103:** Comprehensive Environmental Response, Compensation and Liability Act (Superfund). Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

**RCRA:** Resource Conservation and Reclamation Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33
Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Mallinckrodt makes no representations, or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Mallinckrodt will not be responsible for damages resulting from use of or reliance upon this information. 

4-PICOLINE

PRODUCT IDENTIFICATION:

Synonyms: Pyridine, 4-methyl-

Formula CAS No.: 108-89-4

Molecular Weight: 93.14

Chemical Formula: C₈H₇N

Hazardous Ingredients: 4-Picoline

PRECAUTIONARY MEASURES

WARNING: HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN AND EYES. MATERIAL IS IRRITATING TO THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. COMBUSTIBLE.

Do not breathe vapor.

Avoid contact with eyes, skin and clothing.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

Keep away from heat, sparks and flame.

EMERGENCY/FIRST AID

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, call a physician immediately.

SEE SECTION 5.

DOT Hazard Class: Combustible Liquid

SECTION 1  Physical Data

Appearance: Colorless liquid.

Odor: Disagreeable odor.

Solubility: Soluble in water.

Boiling Point: 145°C (293°F)

Melting Point: 2.4°C (36°F)

Specific Gravity: 0.957

Vapor Density (Air = 1): 3.21

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

SECTION 2  Fire and Explosion Information

Fire:

Combustible liquid.

Flash point: 57°C (134°F)

Explosion:

Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media:

Dry chemical, foam or carbon dioxide.

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.

SECTION 3  Reactivity Data

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

May form carbon oxides and nitrogen oxides when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizers.

SECTION 4  Leak/Spill Disposal Information

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Contain and recover liquid when possible. Collect as hazardous waste and atomize in a suitable RCRA approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility. Do not flush to sewer!

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 2 Flammability: 2 Reactivity: 0

Effective Date: 03-05-87 Supersedes 09-01-85

4-PICOLINE
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SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS
Information on the human health effects from exposure to this substance is limited.

Inhalation:
Inhalation of vapor or mist is irritating to the mucous membrane and upper respiratory tract.

Ingestion:
Harmful if swallowed. May affect central nervous system.

Skin Contact:
Toxic. Causes skin irritation. May be absorbed through skin.

Eye Contact:
Causes eye irritation.

Chronic Exposure:
Chronic exposure may have central nervous system effects.

Aggravation of Pre-existing Conditions:
The use of alcoholic beverages enhances the toxic effects.

B. FIRST AID

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:
If swallowed, call a physician immediately.

Skin Exposure:
Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

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

C. TOXICITY DATA (RTECS, 1986)

Oral rat LD50: 1970 mg/kg Skin rabbit LD50: 270 mg/kg

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:
None established.

Ventilation System:
A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

Personal Respirators: (NIOSH Approved)
For conditions of use where exposure to the vapor is apparent, a half mask chemical cartridge respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

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

Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Protect against physical damage. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas.

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