Trimethylaluminum,

2.0 M Solution in Hexanes

11/13/2001

Safety	Chemistry	Management
Protective	Synonyms	Responsible
Toxicity	Incompatible	Manufacturer and Order Number
Health Effects	Structure	
PEL/TWA	Disposal	
NFPA	Hazardous Decomposition	
	Physical Data	

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Equipment

Eyes

- Use safety goggles and face shield (8-inch minimum)
- An eye bath should be close by.

Skin

- Use adequate personal protection to avoid contact with skin and clothing. Use chemical resistant gloves.

Respiratory

- Use adequate protection to avoid breathing the vapor
- Wear appropriate NIOSH/MSHA-approved respirator.

Special Precautions

- **Storage:**

    1. Handle and store under nitrogen.
    2. Keep away from heat sparks and open flame.
    3. Keep tightly closed.
    4. Store in a cool dry place.

- **Handling:**

1. Use non-sparking tools.
2. Avoid contact, inhalation and prolonged exposure.
3. Container should be opened only by a technically qualified person.
4. Wash thoroughly after handling.

- **Ventilation:**

1. Use only in a chemical fume hood.

- **Engineering Controls:**

1. Safety shower and eye bath should be near by.

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Toxicity

Irritation Data

- Information not given by the manufacturer.

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Health

Effects:

- **Inhalation:** Harmful by inhalation. Material is extremely destructive to tissues of the mucous membrane and upper respiratory tract. May cause spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

- **Skin/Eye/Mucous membrane:** Material is destructive to tissues of the eyes, skin and mucous membranes.

- **Ingestion:** Harmful by ingestion.

- **Target Organs:** Nervous system. Hexanes contain 65-85% n-hexane (CAS# 110-54-3) which is a suspected neurotoxin.

First Aid:

- **Inhalation:** Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- **Skin:** Immediately wash skin with soap and copious amounts of water. Call a physician.
- **Eye:** Immediately flush eyes with copious amounts of water at least 15 minutes. Call a physician.
- **Ingestion:** If ingested, call a physician immediately. If swallowed wash out mouth with water provided person is conscious.

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PEL/TWA

PEL

- Information not given by the manufacturer.

TWA

- Information not given by the manufacturer.

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Fire Hazard Data

- **Extinguishing Media:** Dry chemical powder. Do not use water.
- **Special Fire-Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- **Unusual Fire Hazards:** Emits toxic fumes under fire conditions. Material is corrosive. Catches fire if exposed to air. Reacts with water to liberate flammable and/or explosive gas.
- **NFPA:** Information not given by the manufacturer.

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Synonyms

- Not provided by the manufacturer.

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Incompatibles

- Oxidizing Agents
- Water
- Alcohols
- Oxygen
- Bases
- Acids

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Structure

- **Formula:** C_3H_9Al

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Disposal

Spill Procedures:

- Evacuate area and shut off all sources of ignition.
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.
- Ventilate area and wash spill site after pick up.

Disposal:

- Under an inert atmosphere, cautiously add the material to dry butanol in an appropriate solvent. The chemical reaction may be vigorous and/or exothermic.
- Provisions must be made for the venting of large volumes of highly flammable hydrogen and/or hydrocarbon gases.
- Neutralize the solution with aqueous acid. Filter any solid residues for disposal as hazardous wastes
- The liquid portion may be burned in a chemical incinerator equipped with an afterburner and scrubber.
- Observe all federal, state and local environmental regulations.

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Hazardous Decomposition

- Carbon Monoxide
- Carbon dioxide
- Aluminum oxide

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Physical Data

- Boiling point: 175 ºC
- Flash point: -18 ºC (-1 ºF)
- Specific gravity: .683

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Manufacturer

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