



Safety Data Sheet (MSDS)

Metal Loaded Linear Alkyl Benzene

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HAZARD SUMMARY

This substance is a laboratory experimental product. Its hazards have not been determined or tested. The warnings in this MSDS are based on the hazards of the major constituents. The cautions, prudent practices, and personal protective controls applicable to hazardous substances should be observed. It is ignitable and an irritant to skin and eyes.

SECTION 1 IDENTITY INFORMATION

Material Name Metal loaded Linear Alkyl Benzene

Synonyms: Li, Te, Gd, Nd trace in 80%-99.8% LAB/20% Surfactant mixture

CAS No.: (mixture) Linear Alkylbenzene 67774-74-7

SECTION 2 PRODUCT INGREDIENTS

<u>Hazardous Components</u>	<u>(% Component)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Linear Alkyl Benzene (LAB)	(80 – 99.8%)	none	none
Surfactant	(0 - 20%)	none	none
Traces of Lithium	(<1%)	none	none
Traces of Gadolinium	(<1%)	none	none
Traces of 3,5,5-Trimethyl Hexanoic Acid (TMHA)	(<1%)	none	none
Traces of Tellurium	(<1%)	none	none
Traces of Neodymium	(<1%)	none	none
<u>Non-hazardous Components</u>		<u>OSHA PEL</u>	<u>ACGIH TLV</u>
None		none	None

SECTION 3 PHYSICAL & CHEMICAL CHARACTERISTICS

Physical Description: colorless liquid

Odor: odorless

Boiling Point: estimated to be >199°C

Vapor Pressure: <0.1 mmHg @ 20°C

Melting Point: <-50°C

Specific Gravity: estimated to be approx. 1

Solubility in Water: slightly soluble

Vapor Density (Air=1): estimated at >8

SECTION 4 FIRE AND EXPLOSION DATA

Fire and Explosion Hazard: This is a potentially ignitable liquid solution. Some individual components will burn if exposed to a sustained ignition source. Avoid use of this product around open flame or heat sources.

Flash Point: estimated to be 130°C (Pensky Martens)

Auto-Ignition Temperature: n/d

Lower Flammability Limit: n/d

Upper Flammability Limit: n/d

Extinguishing Method: Use Carbon Dioxide or Dry Powder fire extinguisher in the event of fire of this material. If water is used, flood with very large amounts of water to quench heat.

Special Fire Fighting Procedures: Maintain safe distances and apply extinguishing media. Fire fighters should wear self-contained breathing apparatus and full protective equipment.

Hazardous Decomposition Products: May emit toxic fumes under very high temperature fire conditions. Hazards from fire are not known but would be expected to include carbon monoxide and carbon dioxide.

SECTION 5 REACTIVITY DATA

Stability: Expected to be stable under normal conditions.

Conditions to avoid: not known

Incompatibilities: not known

Polymerizations: Will not occur under normal conditions.

Conditions to avoid: not known

SECTION 6 HEALTH HAZARD DATA

Typical Routes of Exposure: Skin contact with liquid.

Health Effects of Acute Exposure: Skin and eye irritation.

Health Effects of Chronic Exposure: The effects of long term exposure are unknown, thus caution is prudent. No adverse effects are anticipated.

Signs and Symptoms of Exposure: Exposure to this product may produce reddening, swelling or irritation of the skin.

Carcinogenicity: None of the components are listed as a regulated carcinogen by OSHA.

Medical Conditions Aggravated by Exposure: unknown

First Aid & Emergency Procedures:

Skin contact: Wash with large amounts of soap & water for at least 15 minutes. Seek medical attention if irritation persists or tissue burning has occurred.

Eye Contact: Flush eyes with water for at least 15 minutes. Seek medical attention immediately.

Inhalation: Remove to fresh air. Administer oxygen if breathing is difficult and seek medical attention immediately. If not breathing, give artificial respiration.

Ingestion: If conscious, give large amounts water. Seek medical attention immediately.

Note: Seek medical treatment after any exposure if discomfort or symptoms persist

SECTION 7 PRECAUTIONS FOR SAFE HANDLING AND USE

Special Precautions for Handling and Use: Personal protective equipment should be worn when handling this product based on the limited experience with the material. See Section 8.

Steps to be Taken in Case of Release or Spill: Remove spilled liquid using a technique that minimizes the generation of airborne vapors. Prevent contact with surface water. Contain and isolate spilled material via diking if necessary. Place recovered material in a suitable container and dispose of in accordance with federal and local regulations. Appropriate Personal Protective Equipment (see section 8) should be worn during spill remediation.

Waste Disposal Method: Follow all applicable local, State, and Federal regulations. Dispose of only in approved landfill or by other approved method. Do not discharge into waterways or sewer systems.

Precautions for Storage: Do not store this material in contact with incompatible materials. Store material away from heat and flames.

SECTION 8 CONTROL AND PROTECTION MEASURES

Note: The toxic effects of these complexes are not known. Exposure should be kept as low as reasonably achievable.

Ventilation: Local Exhaust: preferred

Mechanical (General): acceptable

Ventilation should be used to keep airborne vapor and mist levels as low as reasonably achievable.

Respiratory Protection: If mists or vapors are generated, use engineering controls to eliminate inhalation of aerosols. Engineering controls may be augmented by a NIOSH approved respirator as part of a respiratory protection program that complies with OSHA regulations. Supplied air respirators are required in emergency situations.

Protective Gloves: Impervious gloves should be used when handling this product.

Eye/Face Protection: Use safety glasses during any handling. Goggles or face shield should be used when pouring dusts of this material.

Work/Hygiene Practices: Wash hands after handling and before smoking or eating.

SECTION 9 REGULATORY DATA

OSHA Hazard Communication Standard: HAZARDOUS

HMIS Rating: (estimated) Health: 1 Flammability: 1 Reactivity: 0 Other: (none)

EPA SARA Title III

Acute Health: Yes

Chronic Health: No

Fire: No

Reactivity: No

Sudden Pressure Release: No

Extremely Hazardous Substance List: not known

Threshold Planning Quantity: not known

EPA Waste No.: not determined

TSCA Status: 67774-74-7

D.O.T./UN Number: n/a

D.O.T. Classification: not hazardous

n/a= not applicable or not available

n/d= not determined

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