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Material Safety Data Sheet

Section 1: Product Identification

Chemical Name: Isopropylmagnesium chloride, lithium chloride complex 1.3M (19wt% +/-1wt%) in tetrahydrofuran

CAS Registry Number: 745038-86-2

Formula: (CH3)2CHMgCl.LiCl

EINECS Number: 213-947-1

Chemical Family: grignard reagent

Contact information:

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Section 2: Composition and Information on Ingredients

Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title compound	745038-86-2	19%	no data	no data
THF	109-99-9	81%	200ppm	560mg/m3

Section 3: Hazards Identification

Extremely flammable. Reacts violently with moisture causing chemical burns on prolonged contact with human

Emergency Overview:

tissue. Harmful if swallowed. Causes burns. Possible risk of irreversible effects.

Primary Routes of Exposure: Ingestion, inhalation, skin, eyes

Eye Contact: Corrosive to eyes. May cause severe eye damage.

Skin Contact: Causes severe irritation and chemical burns with blistering and scarring.

Causes severe irritation of the nose, mucous membranes and respiratory tract . THF may cause nausea,

Inhalation:

dizziness, headache, drowsiness.

Ingestion: Harmful if swallowed. Ingestion causes severe burns to the mouth, throat and gastrointestinal tissues.

Corrosive to skin, eyes and respiratory tract. May cause severe eye damage. Skin contact causes burns with

Acute Health Affects:

scarring. Inhalation causes central nervous system depression.

Tetrahydrofuran is an eye and mucous membrane irritant and can cause liver and kidney damage. Prolonged

Chronic Health Affects: inhalation of the vapors may lead to respiratory disorders. Lithium poisoning may result in kidney and central

nervous system effects. Possible risk of irreversible effects.

NTP: No

IARC: No

OSHA: No

SECTION 4: First Aid Measures

Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need

Eye Exposure:

assistance in keeping their eye lids open. Get immediate medical attention.

Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if

Skin Exposure:

irritation persists.

Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty

Inhalation:

in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious).

Induce Ingestion:

vomiting only if directed by medical personnel.

SECTION 5: Fire Fighting Measures

Flash Point: 1°F (THF)

Autoignition Temperature: 610°F (THF)

Explosion Limits: 1.8%(LEL), 11.8%(UEL) (THF

Extinguishing Medium: carbon dioxide, dry powder or foam

If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure

Special Fire Fighting Procedures:

self-contained breathing apparatus and full protective clothing.

Hazardous Combustion and Decomposion Products: If involved in a fire, this material may emit toxic and corrosive fumes.

Unusual Fire or Explosion Hazards: Highly flammable. Vapors can form explosive mixtures with air. Hydrogen produced on contact with water.

SECTION 6: Accidental Release Measures

Eliminate all potential spark sources. Small spills can be absorbed into vermiculite or other chemical adsorbent

Spill and Leak Procedures:

suitable for flammable materials. Sweep up the mixture and dispose of properly.

SECTION 7: Handling and Storage

Store in a tightly sealed container under an inert atmosphere of nitrogen or argon. Keep in a cool, dry,

Handling and Storage:

well-ventilated place. Keep away from heat.

SECTION 8: Exposure Controls and Personal Protection

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.

Skin Protection: Wear protective clothing and gloves.

Ventilation: Handle the material in an efficient fume hood.

If ventilation is not available a respirator should be worn. The use of respirators requires a Respirator

Respirator:

Protection Program to be in compliance with 29 CFR 1910.134.

Ventilation: Handle the material in an efficient fume hood.

Additional Protection: No additional protection required.

SECTION 9: Physical and Chemical Properties

Color and Form: yellow-brown liq.

Molecular Weight: 145.24

Melting Point: -108°C (THF)

Boiling Point: 66°C (THF)

Vapor Pressure: 143mmHg (20C) (THF)

Specific Gravity: 1.05

Odor: ethereal odor

Solubility in Water: reacts violently with water

SECTION 10: Stability and Reactivity

Stability: air sensitive, moisture sensitive

Hazardous Polymerization: no hazardous polymerization

Conditions to Avoid: heat, ignition sources and contact with moisture

Incompatibility: Acids, oxidizing agents, oxygen, water, alcohols, carbon dioxide, air

Decomposition Products: carbon monoxide, carbon dioxide, magnesium, lithium and hydrogen chloride, organic fumes

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SECTION 11: Toxicological Information

Title compound: No information available in the RTECS files. THF: Inhalation(human); TCLo: 25000ppm. Oral(rat); LD50: 1650mg/kg. Inhalation(rat); LC50: 21000ppm/3H. Intraperitoneal(rat); LD50: 2900mg/kg.

RTECS Data:

Inhalation(mouse); LCLo: 24000mg/m3/2H. Inhalation(rabbit); LC: >1200ppm/4H. Oral(guinea pig); LDLo: 500mg/kg. Inhalation(rat); TCLo: 1800ppm/6H/2Y-I.

Carcinogenic Effects: Insufficient data

Mutagenic Effects: THF: Possible mutagen

Tetratogenic Effects: THF: Reproductive effector

SECTION 12: Ecological Information

Ecological Information: No information available

SECTION 13: Disposal Considerations

Disposal: Dispose of according to local, state and federal regulations.

SECTION 14: Transportation

Shipping Name (CFR): Organometallic substance, Liquid, Water-reactive, Flammable

Hazard Class (CFR): 4.3

Additional Hazard Class (CFR): 3

Packaging Group (CFR): I

UN ID Number (CFR): UN# 3399

Shipping Name (IATA): Organometallic substance, Liquid, Water-reactive, Flammable

Hazard Class (IATA): 4.3

Additional Hazard Class (IATA): 3

Packaging Group (IATA): I

UN ID Number (IATA): UN# 3399

SECTION 15: Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (Title 313): Not reportable under SARA 313

Second Ingredient: THF: Listed in the TSCA inventory. Not reportable under SARA 313.

SECTION 16 - ADDITIONAL INFORMATION

N/A