

**GELEST, INC.**

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MATERIAL SAFETY  
DATA SHEET

EMERGENCY TELEPHONE  
CHEMTREC: 1-800-424-9300

NAME ON LABEL: **DIISOBUTYLALUMINUM HYDRIDE 1M in methylene chloride - OMAL021.4**

CHEMICAL NAME: DIISOBUTYLALUMINUM HYDRIDE in dichloromethane

SYNONYMS: DIBAL-H

CHEMICAL FAMILY: METAL ALKYL

FORMULA: C<sub>8</sub>H<sub>19</sub>Al

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 3

**INGREDIENTS**

IDENTITY	CAS NO.	%	TLV	OSHA PEL
DIISOBUTYLALUMINUM HYDRIDE	1191-15-7	10-15	2mg/m <sup>3</sup>	2mg/m <sup>3</sup>
METHYLENE CHLORIDE	75-09-2	85-90	50ppm	25ppm

**PHYSICAL DATA**

Boiling Point: 116-8°C @ 1mm (neat)

Specific Gravity: 1.23

Vapor Density (air =1): >1

% volatiles: NA

Molecular Weight: 142.22

Appearance & Color: Clear liquid, fumes and ignites in air

Melting Point: <0°C

Vapor Pressure, 22°: <0.1mm; CH<sub>2</sub>Cl<sub>2</sub>: 380mm

Solubility in water: reacts violently

Evaporation rate: NA

Other: NA

**FIRE & EXPLOSION DATA**

**Can spontaneously ignite on contact with air. Pyrophoric liquid and gas.**

Flash Point, COC: -17°C (1°F)

Autoignition Temp.: <0°C- PYROPHORIC

Flammability Limits: not determined

Extinguishing Media: Dry chemical powder followed by sand or dolomite. Do not use water.

Special Fire Fighting Procedures: If material is ignited, allow to burn. Concentrate containment efforts to adjacent combustibles. Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Container explosion may occur during fire conditions.

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## ENVIRONMENTAL INFORMATION

Spill response: Cover with dry chemical extinguishing powder, lime, sand or soda ash. Do not use water. Remove sources of ignition. Remove combustible materials in the vicinity of the spill. Allow time for decomposition or fire to burn out, then sweep material and transfer to a suitable container for disposal.

Recommended Disposal: Incinerate. Follow all chemical pollution control regulations. This is a RCRA hazardous waste: 40 CFR 261.21 (i.e. ignitable) 40 CFR 261.23 (i.e. reactive)

## HEALTH HAZARD DATA

Eye Contact: Will cause immediate or delayed severe burns to the eyes.

Skin contact: Will cause irritation and burns.

Inhalation: Direct respiratory contact is usually not possible, but will cause burns. Inhalation of combustion products can cause irritation. The solvent, methylene chloride, is mildly toxic by inhalation.

Oral Toxicity: Not determined - presumed to be a poison.

Chronic Toxicity: There are no known chronic effects related to this compound. The solvent, methylene chloride, is a confirmed weak carcinogen with experimental tumorigenic data.

Chronic Toxicity: not determined

## SUGGESTED FIRST AID

**EYES:** In case of contact, immediately flush eyes with flowing water for at least 15 minutes. Get medical attention.

**SKIN:** Flush with water, then wash with soap and water.

**INHALATION:** Move exposed individual to fresh air. Administer oxygen if needed. Call a physician.

**INGESTION:** Never give fluids or induce vomiting if patient is unconscious or having convulsions. To conscious individual give one full cup of water to dilute ingested material. Get medical attention.

## REACTIVITY DATA

Stability: Stable in sealed containers under dry inert atmosphere. The product can generate small amounts of hydrogen when exposed to alkalis and protic materials such as water and alcohol.

Conditions to avoid: Store away from alkalis, oxidizers, metal salts, water, chlorine, bromine

Hazardous decomposition products: Hydrogen, formaldehyde, carbon monoxide, organic acid vapors and aluminum oxides.

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## SPECIAL PROTECTION INFORMATION

Ventilation: Glove box or sealed system under inert atmosphere is required. Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV, NIOSH approved organic vapor respirator.

Eye and Face Protection: Full face shield with chemical workers goggles.

Other Clothing and Equipment: Rubber, neoprene or nitrile gloves. An eyewash and emergency shower should be available. Launder clothing before reuse.

## OTHER PRECAUTIONS

For research and industrial use only.

Storage and Handling: Store in sealed containers less than 25°C under nitrogen or argon with <10ppm oxygen. This material has a shelf life of six months. After 6 months assay is reduced.

Laboratory and production areas must be equipped with special fire-extinguishing media for pyrophorics. Flammable and combustible materials should not be stored in or near working areas for pyrophorics.

## TRANSPORTATION

DOT SHIPPING NAME: ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (DIISOBUTYLALUMINUM HYDRIDE)

DOT HAZARD CLASS: 4.2

DOT LABEL: Spontaneously Combustible

DOT ID No: UN3394 PG: I

Air transport and UPS forbidden.

Prepared by safety and environmental affairs      ISSUE DATE: OMAL021.4: 1/15/09  
SUPERSEDES: 1/24/08

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