

GELEST, INC.

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MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME ON LABEL: **TRIMETHYLGALLIUM - OMGA079**

CHEMICAL NAME: TRIMETHYLGALLIUM

SYNONYMS: TMG; TRIMETHYLGALLANE

CHEMICAL FAMILY: METAL ALKYL

FORMULA: C₃H₉Ga

HMIS CODES HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 2

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
TRIMETHYLGALLIUM	1445-79-0	>97		not established

PHYSICAL DATA

Boiling Point: 55.7°C-decomposes

Specific Gravity: 1.15

Vapor Density (air =1): >1

% volatiles: NA

Molecular Weight: 114.83

Appearance & Color: Colorless liquid, ignites on exposure to air

Melting Point: -15°C

Vapor Pressure, 25°: 5mm

Solubility in water: reacts violently

Evaporation rate: NA

Other: NA

FIRE & EXPLOSION DATA

PYROPHORIC! If heated above 100°C, can decompose explosively

Flash Point, COC: <0°C (<32°F)

Autoignition Temp.: <50°C

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.

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

Chronic Toxicity: There are no known chronic effects related to this compound.

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.

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

Hazardous decomposition products: Hydrogen, formaldehyde, carbon monoxide, organic acid vapors and gallium 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. Fire-resistant laboratory jacket or protective clothing. 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 under nitrogen or argon with <50ppm oxygen.

Laboratory and production areas must be equipped with special fire-extinguishing media for organometallics.

TRANSPORTATION

DOT SHIPPING NAME: ORGANOMETALLOID SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE, N.O.S. (TRIMETHYLGALLIUM)

DOT HAZARD CLASS: 4.2

SUB: 4.3

DOT LABEL: DANGEROUS WHEN WET, FLAMMABLE

DOT ID No: UN3394

PG: I

Air transport is forbidden

Prepared by safety and environmental affairs

ISSUE DATE: OMGA079: 8/16/10

SUPERSEDES: 8/4/10

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