

GELEST, INC.

11 East Steel Rd. Morrisville, PA 19067
Phone: (215) 547-1015

MATERIAL SAFETY
DATA SHEET

EMERGENCY TELEPHONE
CHEMTREC: 1-800-424-9300

NAME USED ON LABEL: **2-METHYL-3-BUTENITRILE, tech-95 - ENEM2120**

CHEMICAL NAME: 2-METHYL-3-BUTENITRILE

SYNONYMS: 3-CYANO BUT-1-ENE

CHEMICAL FAMILY: ORGANONITRILE

FORMULA: C₅H₇N

HMIS CODES HEALTH: 3 FLAMMABILITY: 3 REACTIVITY: 0

INGREDIENTS

IDENTITY	CAS NO.	%	TLV	OSHA PEL
2-METHYL-3-BUTENITRILE	16529-56-9	>75	not established	not established
3-PENTENITRILE	4635-87-4	0-15	not established	not established
2-METHYL-2-BUTENIYRILE	4403-61-6	0-10	not established	not established
4-PENTENITRILE	592-51-8	0-5	not established	not established

Gelested recommended TLV 10ppm 8 Hr. TWA

PHYSICAL DATA

Boiling Point: 124°C

Specific Gravity: 0.82

Vapor Density (air=1): >1

% volatiles: <40

Molecular Weight: 81.12

Appearance & Color: Clear to amber liquid with distinct odor.

Freezing Point: <0°C

Vapor Pressure, 20°: 13.1mm

Solubility in water: slightly soluble

Evaporation rate (butyl acetate =1): ~1

Other: NA

FIRE & EXPLOSION DATA

Flash Point, COC: 26°C (79°F)

Autoignition Temp.: not determined

Flammability Limits- LEL: NA UEL: NA

Extinguishing Media: Water spray, foam, carbon dioxide, dry chemical.

Special Fire Fighting Procedures: Avoid eye and skin contact. Do not breathe fumes or inhale vapors.

Unusual Fire and Explosion Hazards: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

-1-(ENEM2120)

ENVIRONMENTAL INFORMATION

Spill response: May be hazardous to aquatic life if released to open waters. Cover spill with absorbent material. Transfer to a suitable container for disposal.

Recommended Disposal: May be incinerated. Alternately, absorb onto clay or vermiculite and dispose of absorbent material as solid waste. Follow all chemical pollution control regulations.

HEALTH HAZARD DATA

Eye Contact: Vapors may cause immediate or delayed eye irritation. Liquid can cause severe conjunctivitis and corneal damage.

Skin contact: May produce irritation or contact dermatitis which may be delayed several hours. Skin permeation may occur in amounts producing the effects of systemic toxicity. Prompt and thorough washing with soap and water will reduce or eliminate potential dermal effects.

Inhalation: Inhalation of vapors or particulates of aminoalkylsilanes will irritate the respiratory tract. Overexposure may produce coughing, headache and nausea.

Oral Toxicity : not determined

Chronic Toxicity: There are no known chronic effects related to this compound. Nitriles may be partially metabolized to cyanide in the body. Symptoms of cyanide exposure include rapid respiration, gasping, headache, drop in blood pressure, vomiting , loss of consciousness and death.

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. Call a physician.

INGESTION: Never give fluids or induce vomiting if patient is unconscious or having convulsions. Get medical attention.

REACTIVITY DATA

Stability: Stable in sealed containers stored.

Conditions to avoid: Combustible; avoid contact with heat, sparks or open flame.

Incompatibility (materials to avoid): Avoid contact with peroxides, oxidizing agents, alcohols, acids.

Hazardous decomposition products: Organic amine vapors.

-2-(ENEM2120)

SPECIAL PROTECTION INFORMATION

Ventilation: Local exhaust is required. Mechanical is recommended.

Respiratory Protection: If exposure exceeds TLV air-supplied or combination organic vapor amine gas respirator.

Eye and Face Protection: Chemical worker's goggles. Do not wear contact lenses.

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.

TRANSPORTATION

DOT SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (2-METHYL-3-BUTENITRILE)

DOT HAZARD CLASS: 3

DOT LABEL: FLAMMABLE LIQUID

DOT ID No: 1993

PG: III

Prepared by safety and environmental affairs

ISSUE DATE ENEM2120: 3/18/10

SUPERSEDES: none

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