



Health
Fire
Reactivity
Personal Protection

Material Safety Data Sheet

trans-2-Methyl-2-butenal MSDS

Section 1: Chemical Product and Company Identification

Product Name: trans-2-Methyl-2-butenal

Catalog Codes: SLM4462

Synonyms: Tiglic aldehyde.

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
497-03-0	trans-2-Methyl-2-butenal	98%	207-833-0

Hazard Symbols: XI F

Risk Phrases: 11 36/37/38

Section 3: Hazards Identification

EMERGENCY OVERVIEW: Appearance: colorless to light yellow liquid. Flash Point: 18 deg C. Causes eye and skin irritation. May cause digestive tract irritation. Causes respiratory tract irritation. Irritant.

Danger!: Highly flammable. May cause central nervous system depression.

Target Organs: Central nervous system, respiratory system, eyes, skin.

Potential Health Effects:

Eye: Causes eye irritation. May cause chemical conjunctivitis.

Skin: Causes skin irritation. May be harmful if absorbed through the skin. May cause cyanosis of the extremities.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed. Ingestion of large amounts may cause CNS depression.

Inhalation: Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Aspiration may lead to pulmonary edema. May be harmful if inhaled. Vapors may cause dizziness or suffocation. May cause burning sensation in the chest.

Chronic: No information found.

Section 4: First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Will be easily ignited by heat, sparks or flame. Containers may explode if exposed to fire. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: Water may be ineffective. If water is the only media available, use in flooding amounts. Use water spray, dry chemical, carbon dioxide, or chemical foam. Do NOT use straight streams of water. Cool containers with flooding quantities of water until well after fire is out.

Flash Point: 18 deg C (64.40 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7: Handling and Storage

Handling: Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Use only in a chemical fume hood. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Refrigerator/flammables. Keep refrigerated. (Store below 4#C/39#F.)

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
trans-2-Methyl-2-butenal	none listed	none listed	none listed

OSHA Vacated PELs: trans-2-Methyl-2-butenal: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment:

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9: Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless to light yellow

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: 2.89

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 118 - 120 deg C

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: 0.871

Molecular Formula: C5H8O

Molecular Weight: 84.0554

Section 10: Stability and Reactivity Data

Chemical Stability: Not currently available.

Conditions to Avoid: Ignition sources, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported

Section 11: Toxicological Information

RTECS#:

CAS#: 497-03-0 unlisted.

LD50/LC50: Not available.

Carcinogenicity: CAS# 497-03-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: No data available.

Section 12: Ecological Information

Section 13: Disposal Considerations

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14: Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	ALDEHYDES, N.O.S.				No information available.
Hazard Class:	3				
UN Number:	UN1989				
Packing Group:	II				

Section 15: Other Regulatory Information

US FEDERAL:

TSCA: CAS# 497-03-0 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARA:

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

Section 313: No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE: CAS# 497-03-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ. California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations:

European Labeling in Accordance with EC Directives:

Hazard Symbols: XI F

Risk Phrases: R 11 Highly flammable. R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases: S 16 Keep away from sources of ignition - No smoking. S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 33 Take precautionary measures against static discharges. S 37/39 Wear suitable gloves and eye/face protection. S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection): CAS# 497-03-0: No information available.

Canada - DSL/NDSL: CAS# 497-03-0 is listed on Canada's DSL List.

Canada - WHMIS: This product has a WHMIS classification of D2B, B2.

Canadian Ingredient Disclosure List:

Exposure Limits:

Section 16: Other Information

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