

Safety Data Sheet

#90028589 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Tiglic aldehyde - Trans-2-methyl-2-butenal	497-03-0	CH ₃ CH=C(CH ₃)CHO	10	21 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name	Tiglic aldehyde - Trans-2-methyl-2-butenal
CAS number	497-03-0
EC / EINECS number	207-833-0
Chemical formula	CH ₃ CH=C(CH ₃)CHO
Molecular weight	84.12
SMILES	C/C=C(\C)/C=O

1.2 Relevant identified uses of the substance or mixture and uses advised against

For research and development. Laboratory chemicals. Manufacture of substances.
Not suitable for human or veterinary purposes

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Flam. Liq. 2; H225
Skin Irrit. 2; H315
Eye Irrit. 2; H319
STOT SE 3; H335
Aquatic Chronic 2; H411

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H225	Highly flammable liquid and vapour
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

CODE	PRECAUTIONARY STATEMENT
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P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P273	Avoid release to the environment
P302+352	IF ON SKIN: Wash with soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention

2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Tiglic aldehyde - Trans-2-methyl-2-butenal
CAS number	497-03-0
EC number	207-833-0
Concentration / purity	>95
Classification according to Regulation (EC) No 1272/2008	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Chronic 2; H411
Hazard statements	H225, H315, H319, H335, H411
Acute toxicity estimate (ATE)	None reported
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.
Skin contact	Get medical attention. Wash off immediately with plenty of water for at least 15 minutes.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Difficulty in breathing; inhalation of high vapor concentrations may cause headache, dizziness, tiredness, nausea and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable extinguishing media No information available.

5.2 Special hazards arising from the substance or mixture

Flammable

Combustible

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Pay attention to flashback

Vapours may travel to source of ignition and flash back.

Containers may explode when heated.

Vapours may form explosive mixtures with air.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Risk of explosion. Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Ground all metal parts of equipment. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame.
Storage class (TRGS 510): 3: Flammable liquids
Air sensitive. Store under nitrogen.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) No values reported

DNEC/PNEC data No values reported

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Protective gloves (Natural rubber, Nitrile rubber, Neoprene, PVC) and long sleeved clothing.

Respiratory protection Dust mask (FFP2/FFP3)
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection Flame retardant antistatic protective clothing.

Environmental exposure controls No data available

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state Liquid
DERIVED FROM: LITERATURE

Colour Clear
DERIVED FROM: LITERATURE

Odour Characteristic
DERIVED FROM: LITERATURE

Melting / freezing point No data available.
DERIVED FROM: LITERATURE

Boiling point	115 - 119 °C DERIVED FROM: LITERATURE
Flammability	Highly flammable DERIVED FROM: LITERATURE
Lower and upper explosion limit	No data available. DERIVED FROM: LITERATURE
Flash point	21 °C DERIVED FROM: LITERATURE
Auto-ignition temperature	No data available. DERIVED FROM: LITERATURE
Decomposition temperature	No data available. DERIVED FROM: LITERATURE
pH	No data available. DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Kinematic viscosity	No data available. DERIVED FROM: LITERATURE
Solubility	Slightly soluble DERIVED FROM: LITERATURE
Partition coefficient n-octanol/water (log value)	log Pow: 0.922 DERIVED FROM: LITERATURE
Vapour pressure	No data available. DERIVED FROM: LITERATURE
Density (g/mL)	0.871 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available. DERIVED FROM: LITERATURE
Particle characteristics	No data available. DERIVED FROM: LITERATURE

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

Vapours may form explosive mixture with air.

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Incompatible products, excess heat, open flames, hot surfaces and sources of ignition

10.5 Incompatible materials

Strong oxidizing agents, strong bases, strong reducing agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50) *No data available*

Skin corrosion / irritation Causes skin irritation. Causes skin irritation

Eye corrosion / irritation Causes serious eye irritation

Respiratory / skin sensitisation *No data available*

Carcinogenicity There are no known carcinogenic chemicals in this product

Mutagenicity There are no known mutagenic chemicals in this product

Reproductive toxicity There are no known reproductive toxicants in this product

STOT (single / repeated exposure) Category 3 (Respiratory system)

Aspiration hazard *No data available*

11.2 Information on other hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 12

Ecological information

12.1 Toxicity

Potentially to the environment

12.2 Persistence and degradability

May persist

12.3 Bioaccumulative potential

May have some potential to bioaccumulate

12.4 Mobility in soil

Is not likely mobile in the environment due its low water solubility

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with the European Directives on waste and hazardous waste

SECTION 14

Transport information

14.1 UN number or ID number

UN1989

14.2 UN proper shipping name

ALDEHYDES, N.O.S.

14.3 Transport hazard class(es)

3



14.4 Packing group

II

14.5 Environmental hazards

No hazards identified

14.6 Special precautions for user

Special precautions for user No special precautions required

Transport category 2

Tunnel code (D/E)

Packing instruction (ADR) P001

Packing instruction (IMDG) P001

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance-specific regulations (e.g. licences)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS
Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

REACH code

Y110

ECHA notification

Not applicable

15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information

This SDS (v10) was created on 21.09.2026

Full text of H-Statements referred to under sections 2 and 3:
H225 - Highly flammable liquid and vapor,
H315 - Causes skin irritation,
H319 - Causes serious eye irritation,
H335 - May cause respiratory irritation.
H411- Toxic to aquatic life with long lasting effects

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.