

Printing date 06/21/2019

Reviewed on 06/20/2019

1 Identification

- **Product identifier**
 - **Trade name:** Tacusil 410014
 - **Recommended use** Cyanoacrylate Adhesive
 - **Restrictions on use** For industrial use only
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
ResinLab China
Room 9,11 Floor, Chuangxin Building Block 1,
No.1, Technology Road, Technology Chuangxin Park,
West of Dayabay, Huizhou City, Guangdong, P.R. China
(86 752) 5533798
 - **Information Department:** Product Safety Department: msds@resinlab.com
 - **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 4 H227 Combustible liquid.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
Ethyl 2-cyanoacrylate
- **Hazard statements**
H227 Combustible liquid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Precautionary statements**
Keep away from flames and hot surfaces. – No smoking.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves / eye protection / face protection.
If on skin: Wash with plenty of water.
If INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
 - **NFPA System**
 - **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 2
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

- **HMIS System**
 - **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 2
Reactivity = 0

- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.

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· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Dangerous components:**

CAS: 7085-85-0 EINECS: 230-391-5 Index number: 607-236-00-9 RTECS: UD3330050	Ethyl 2-cyanoacrylate	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 Flam. Liq. 4, H227	70-80%
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· **Additional information:**

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:**

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing. In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Do not pull bonded skin apart. Use a blunt object such as a spoon to gently release the bonded skin. Soaking in warm soapy water will aid with the debonding.

roll or peel skin apart.

Remove all contaminated clothing and wash before reuse.

· **After eye contact:**

Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause a lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate trapped behind the eyelid caused abrasive damage.

· **After swallowing:**

If victim is unconscious; never give anything by mouth.

Peel or roll skin apart. Adhesive becomes solid in contact with saliva and may adhere to inside of mouth. Saliva will lift adhesive in 1-2 days. Avoid swallowing solid adhesive after detachment.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** Carbon dioxide (CO₂) and Carbon monoxide (CO)

· **Advice for firefighters**

· **Protective equipment:**

If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).

As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.

· **Environmental precautions:**

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up:**

For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.

For small spills: Ventilate and wash area. Collect spills and absorbent material in appropriate container.

Ensure adequate ventilation.

Dispose contaminated material as waste according to item 13.

Flood with water to polymerize and scrape off of the floor. Dispose as non hazardous waste.

Do not use cotton, wool or carbon fiber type materials for absorbents. These types of materials react exothermically with the cyanoacrylate.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

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Prevent formation of aerosols.

Keep away from incompatible material(s).

Avoid any release into the environment.

Do not allow the material to come in contact with cotton, wool, leather, fiberglass or carbon fiber. The reaction between cyanoacrylate and these materials results in a rapid exothermic reaction that can cause serious burns and release an irritating smoke.

Do not breathe dust/fumes/mist/vapor/spray.

Avoid contact with eyes, skin and clothing.

Keep away from heat, sparks, flames and ignition sources.

Observe all the personal protection requirements in Section 8.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7085-85-0 Ethyl 2-cyanoacrylate

TLV Short-term value: 5.1 mg/m³, 1 ppm

Long-term value: 1 mg/m³, 0.2 ppm

DSEN, RSEN

· **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

· **Exposure controls**

If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Personal Protective Equipment (PPE)**

· **Breathing equipment:**

Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**



Chemical resistant gloves

· **Eye protection:**



Safety Glasses with side shields

· **Body protection:** Appropriate chemical resistant clothing.

· **Limitation and supervision of exposure into the environment**

The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

Liquid

· **Color:**

Clear

· **Odor:**

Sharp, irritating

· **Odor threshold:**

Not determined.

· **pH-value:**

Not determined.

Not determined.

· **Change in condition**

· **Melting point/Melting range:**

Undetermined.

· **Boiling point/Boiling range:**

148 °C (298.4 °F)

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Safety Data Sheet

acc. to OSHA HCS

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· Flash point:	80 °C (176 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapor pressure:	Not determined.
· Vapor Density:	not determined
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not available.
	Not determined.
· Kinematic:	Not available.
· VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gal

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
In contact with incompatible materials.
No dangerous reactions known.
- **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.
- **Incompatible materials:**
Oxidizing agents
Strong bases
- **Hazardous decomposition products:** Refer to section 5.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

7085-85-0 Ethyl 2-cyanoacrylate

Oral	LD50	>5,000 mg/kg (rat) (OECD TG 401; males; neat substance) One out of six rats died on the fourth day at 5000 mg/kg dose level; the substance was not classified as toxic to rats based on the classification criteria. Reference: ECHA (2012).
Dermal	LD50	>2,000 mg/kg (rabbit) (LD0; OECD TG 402; males; neat substance) No mortality occurred; the substance was therefore considered as non-toxic via dermal application. Reference: ECHA (2012).
Inhalative	LC50/4 h	>21.1 mg/l (rat) (LC50/1 hour; vapor) Reference: ACToR (2012).

7631-86-9 silicon dioxide, chemically prepared

Oral	LD50	>3,160 mg/kg (mouse) Reference: OECD SIDS (2004) and IUCLID Dataset (2004).
		>5,000 mg/kg (rat) (OECD TG 401 A) Reference: OECD SIDS (2004) and IUCLID Dataset (2004).
Dermal	LD50	>2,000 mg/kg (rabbit) Reference: OECD SIDS (2004) and IUCLID Dataset (2004).
Inhalative	LC50/4 h	>2.08 mg/l (rat) No animals died. Nasal discharge during exposure, crusty eyes, crusty nose and alopecia at days post-exposure. Reference: OECD SIDS (2004) and IUCLID Dataset (2004).

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9011-14-7 Methyl methacrylate homopolymer

Oral	LD50	mg/kg (No data available)
Dermal	LD50	mg/kg (No data available)
Inhalative	LC50/4 h	mg/l (No data available)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide, chemically prepared	3
9011-14-7	Methyl methacrylate homopolymer	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

No data available.

No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.

· **General notes:** Not hazardous for water.

· **Results of PBT and vPvB assessment**

· **PBT:** None of the ingredients is listed.

· **vPvB:** None of the ingredients is listed.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Dispose of according to your local waste regulations.

14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA** UN3334

· **UN proper shipping name**

· **DOT, IMDG, IATA** Aviation regulated liquid, n.o.s. (Ethyl 2-cyanoacrylate)

· **Transport hazard class(es)**

· **DOT, IMDG, IATA**



· **Class**
· **Label**

9 Miscellaneous dangerous substances and articles
9

· **Packing group**

· **DOT, IMDG, IATA** III

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles

· **Danger code (Kemler):**

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· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 450 L
On cargo aircraft only: 450 L

· **UN "Model Regulation":**

UN3334, AVIATION REGULATED LIQUID, N.O.S. (Ethyl 2-cyanoacrylate), 9, III
UN 3334 AVIATION REGULATED LIQUID, N.O.S. (ETHYL 2-CYANOACRYLATE), 9, III

15 Regulatory information

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

· **SARA Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **Section 311/312 (Hazardous Chemical Inventory reporting)**

· **SARA Section 311/312 (Hazardous Chemical Inventory Reporting)**

None of the ingredients is listed.

· **Hazard Abbreviations for SARA 311/312**

A - Acute Health Hazard
C - Chronic Health Hazard
F - Fire Hazard
R - Reactive Hazard
S - Sudden Release of Pressure Hazard

· **TSCA 8 (b) Inventory:**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **International Regulation Lists**

· **REACH - Substances of Very High Concern (SVHC) List:**

None of the ingredients is listed.

· **Restriction of Hazardous Substances Directive (RoHS) list:**

None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department Issuing (M)SDS:** Product Development Department

· **Contact:** msds@resinlab.com

· **Date of preparation / last revision** 06/21/2019 / -