Ricacryl® 3500

Safety Data Sheet

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Section 1: Identification

1.1. Product identifier

Product form : Substance

Product Identifier(s) : Ricacryl® 3500

CAS-No. : 168612-08-6

1.2. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Rubber coagent
Rubber production and processing

1.3. Details of the supplier of the safety data sheet

TotalEnergies Petrochemicals & Refining USA, Inc.
Cray Valley Division
PO Box 674411
Houston,TX 77267-4411

For non-emergency product information:
Phone: 713-483-5000 or 1-877-871-2729
Email: product.stewardship@totalenergies.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (Toll Free USA & Canada) / 703-527-3887 (Multiple languages)
TotalEnergies Petrochemicals & Refining USA, Inc.: 1-800-322-3462 (Language: English only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin sensitization, Category 1

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS-US) :

Signal word (GHS US) : Warning

Hazard statements (GHS-US) : **May cause an allergic skin reaction**

Precautionary statements (GHS-US) : Avoid breathing vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, eye protection, face protection.
If on skin: Wash with plenty of water.
Specific treatment (see Section 4.1 of SDS or information on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Hazards not otherwise classified

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

2.5. Additional information

Based on conditions common to industrial workplace use of this product : Contact with skin or eyes with hot material may cause serious thermal burns.

Vapors formed when material is processed at high temperatures may be irritating to the eyes and upper respiratory tract.

Based on professional judgment, inconclusive testing, or sensitive individuals	:	May cause mild respiratory irritation. May cause mild skin irritation. May cause mild eye irritation.

Section 3: Composition/Information on ingredients

3.1. Substance

Substance type	:	Polymer
Name	:	Ricacryl® 3500
CAS-No.	:	168612-08-6
Chemical name	:	1,3-Butadiene, homopolymer, maleated, 1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl esters
Generic name	:	Methacrylate grafted polybutadiene

Where concentrations in this product are displayed as ranges, it is due to batch-to-batch variability.

Impurities and/or Stabilizing Additives which Contribute to the Classification:

Name	CAS-No.	% (Weight Percent)
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (Impurity)	27813-02-1	< 5
2,6-di-tert-butyl-p-cresol (Stabilizer)	128-37-0	1

3.2. Mixture

Not applicable

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	:	Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Heated Material: For serious burns from heated material, get medical attention. In case of skin contact, immediately immerse in or flush with clean, cold water. Do not remove clothing adhering to the skin.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking, tears or redness persist. Heated Material: For serious burns from heated material, get medical attention. In case of contact with the eyes : Rinse immediately with plenty of water for 15 minutes.
First-aid measures after ingestion	:	Rinse mouth out with water. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	:	The working steams can irritate the eyes as well as the respiratory tract.
Symptoms/effects after skin contact	:	May cause an allergic skin reaction. Product may cause mild skin irritation. Contact with hot material - prevent serious burns.
Symptoms/effects after eye contact	:	Contact with hot material - prevent serious burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray or fog. Carbon dioxide. Foam. Dry chemical. Dry powder. Sand.
Unsuitable extinguishing media	:	Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the chemical

Fire hazard	:	Slightly combustible. Heat from fire can generate flammable vapor.
Explosion hazard	:	Not expected to be an explosion hazard under normal conditions of use.
Hazardous decomposition products in case of fire	:	Carbon oxides (CO, CO2). Toxic fumes. 1,3-butadiene. Methacrylates.

5.3. Advice for firefighters

Firefighting instructions	:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Water may be ineffective in firefighting due to low solubility. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.

Other information : Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Pressure relief system may plug with solids, increasing risk of overpressure. Water may be ineffective in firefighting due to low solubility.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Emergency procedures for non-emergency personnel : Avoid contact with skin and eyes. Do not breathe vapors. Ensure adequate ventilation. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures for emergency responders : No additional requirement.

6.2. Methods and material for containment and cleaning up

For containment : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite. Keep recovered product for subsequent disposal.

Methods for cleaning up : Wash away residue with large amounts of water. Gather the product and place it in a spare container that has been suitably labeled.

6.3. Reference to other sections

See section 8. Exposure controls/personal protection.

Section 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with elevated temperature or molten product to prevent burns. Wear personal protective equipment. Avoid all contact with skin, eyes, or clothing. Eliminate all ignition sources if safe to do so. If heating is necessary for drummed product, loosen or remove bung or lid before warming/heating product to avoid overpressurization in the drum.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Electrical equipment should conform to the National Electric Code. Containers which are opened should be properly resealed and kept upright to prevent leakage.

Storage conditions : Keep container tightly closed. Store in a dry, cool area. Check inhibitor content often, adding to bulk liquid if needed. Do not allow contamination by any foreign material. Protect from moisture. Protect from freezing. Maintaining air in the storage containers is important to keep inhibitors active. Keep away from sources of ignition.

Incompatible materials : Strong oxidizing agents. Strong reducing agents. Strong acids. Peroxides.

Storage temperature : 10 – 32 °C

Section 8: Exposure controls/personal protection

8.1. Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV, or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

2,6-di-tert-butyl-p-cresol (128-37-0)		
USA ACGIH	ACGIH OEL TWA	2 mg/m³ (IFV - Inhalable fraction and vapor)
USA ACGIH	Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Safety shower. Eye fountain.

Hand protection : Protective gloves. Do not use natural rubber gloves. Product used with solvents : wear thick (> 0.5 mm) nitrile gloves. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility, etc.) is noticed.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear respiratory protection.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Viscous.

Color : brown.

Odor : Hydrocarbon.

Odor threshold	:	No data available
pH	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	- 88 °C
Initial boiling point and boiling range	:	Not applicable
Flash point	:	> 121 °C Cleveland open cup (COC)
Auto-ignition temperature	:	No data available
Decomposition temperature	:	> 149 °C
Flammability	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	< 1
Solubility	:	Water: practically insoluble
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available

9.2. Other information

Explosive properties : Not expected to be a explosion hazard under normal conditions of use.

Section 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. Maintaining air in the storage containers is important to keep inhibitors active.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Heat. UV sources. Moisture. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Strong reducing agents. Strong acids. Peroxides.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Ingestion. Skin and eye contact.

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Ricacryl® 3500 (168612-08-6)	
LD50 oral rat	> 2000 mg/kg

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LD50 oral rat	11200 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

2,6-di-tert-butyl-p-cresol (128-37-0)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

2,6-di-tert-butyl-p-cresol (128-37-0)	
IARC group	3 - Not classifiable
National Toxicology Program (NTP) Status	Not listed

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Section 12: Ecological information

12.1. Toxicity

2,6-di-tert-butyl-p-cresol (128-37-0)	
LC50 - Fish [1]	5 mg/l (Exposure time: 48 h - Species: Oryzias latipes)
EC50 - Other aquatic organisms [1]	6 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
EC50 - Other aquatic organisms [2]	> 0.42 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Ricacryl® 3500 (168612-08-6)	
Partition coefficient n-octanol/water (Log Pow)	> 6

2,6-di-tert-butyl-p-cresol (128-37-0)	
BCF - Fish [1]	230 – 2500
Partition coefficient n-octanol/water (Log Pow)	5.1

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Partition coefficient n-octanol/water (Log Pow)	0.97 (at 20 °C (at pH 2-8)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Transfer to a safe disposal area in accordance with federal, state, and local regulations.

Product/Packaging disposal recommendations : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 14: Transport information

US Transport (DOT) for Bulk Shipments (Non-Bulk Shipments May Differ)

Not regulated by US DOT

Transport by sea (IMDG)

Not regulated by IMDG

Air transport (IATA)

Not regulated by IATA

Section 15: Regulatory information

15.1. US Federal regulations

EPA TSCA Status

All components of this product are listed or exempt from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Active inventory. This product has no special requirements under TSCA, such as significant new use rules (SNUR), consent orders, test rules, or sections 4, 5, 6, 8(a), 8(d), 12(b) requirements.

SARA Section 313 Supplier Notification

This product contains no toxic chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA Section 311/312 Hazard Classes Health hazard - Respiratory or skin sensitization

Export Control Classification Number (ECCN): EAR99 (No License Required)

15.2. International regulations

CANADA

No additional information available

National inventories

Ricacryl® 3500 (168612-08-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on the Canadian Non-Domestic Substances List (NDSL)
Listed on or exempt from listing on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

This product may contain California Proposition 65 substances at concentration levels below those required to be classified as hazardous by OSHA's Hazard Communication Standard (29 CFR 1910.1200). Contact TotalEnergies Petrochemicals & Refining USA, Inc. if you need specific information regarding status of this product with regard to California Proposition 65.

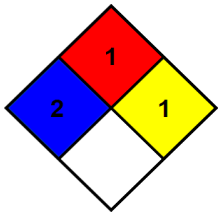
Section 16: Other information

Other information : This material contains an inhibitor (MEHQ) at < 0.1%. The type and amount meet product specifications. Contact a company representative for exact concentrations and details on inhibitor level maintenance.

Unless agreed to in a separate written agreement with the Customer, TotalEnergies Petrochemicals & Refining USA, Inc. makes no representations and disclaims all warranties, express or implied, with respect to biocompatibility and/or the suitability of this product for medical device applications including : (i) implantable devices intended for human or animal body, (ii) devices intended to be used in contact with internal body fluids, and (iii) devices intended to be used in contact with internal body tissues. If the Customer intends to use this product for any such application, it must first contact TotalEnergies Petrochemicals & Refining USA, Inc. and establish agreed terms and conditions for such use.

NFPA (National Fire Protection Association)

NFPA health hazard : 2
NFPA fire hazard : 1
NFPA reactivity : 1



Hazard System Rating

Health : 2
Flammability : 1
Physical Hazard : 1
Personal protection : See section 8 of SDS

US OSHA LABEL as specified under 29 CFR §1910.1200 (f). The label shown may include supplemental information in addition to required elements.

Ricacryl® 3500

TotalEnergies Petrochemicals & Refining USA, Inc., Cray Valley Division
PO Box 674411
Houston, TX 77267-4411 USA
Tel. 713-483-5000 or 1-877-871-2729

Warning

May cause an allergic skin reaction

Avoid breathing vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, eye protection, face protection.
If on skin: Wash with plenty of water.
Specific treatment (see Section 4.1 of SDS or information on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents and container in accordance with all local, regional, national and international regulations.

US SDS Version: 1.4
Issue date: April 10, 2023

SDS ID: RICACRYL_3500
SDS REFERENCE NUMBER: FP00553

SDS Template - TotalEnergies SDS US TEPRI Version 22.02