



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: Pentaerythritol tetraacrylate **Molecular Formula:** C₁₇H₂₀O₈
Catalog Number: M-224
Company: Scientific Polymer Products, Inc.
6265 Dean Parkway
Ontario, NY 14519
Telephone: 585/265-0413
Fax: 585/265-1390
Website: www.scipoly.com
Emergency Phone Number: 800-255-3924 (CHEM TEL)

Section 2: Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation, Category 2, H315
Serious eye damage, Category 1, H318
Skin sensitization, Category 1, H317
Chronic aquatic toxicity, Category 2, H411

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) or not covered by GHS – Effects due to processing releases: Irritating to eyes, respiratory system and skin. Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure)

Other: This product may release fume and/or vapor of variable composition depending on processing time and temperature. Possible cross sensitization with other acrylates and methacrylates.

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

Section 3: Composition/Information on Ingredients

Ingredient	CAS Number	Concentration (%)
2-Propenic acid, 2,2-bis[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester	4986-89-4	> = 60 - < = 100%
2-Propenic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)methyl]-1,3-propanediyl ester	3524-68-3	> = 30 - < 60%

Section 4: First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Section 5: Fire-Fighting Measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

When burned the following hazardous products of combustion can occur: Carbon oxides, Hazardous organic compounds, polymerization is exothermic and can degenerate into an uncontrolled reaction.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Possible fall hazard- floor may become slippery from leakage/spillage of product. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Ventilate the area. Sweep up and shovel into suitable properly labeled containers for prompt disposal. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Soak up with inert material absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well ventilated place.

Heat sensitive. Polymerization can occur.

Specific end use(s)

Laboratory chemicals, Manufacture of substances

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

Component	CAS No.	Value	Control parameters	Basis
2-Propenic acid, 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)methyl]-1,3-propanediyl ester	3524-68-3	TWA	1.000000 mg/m3	USA. Workplace Environmental Exposure Levels (WEEL)
	Remarks	Dermal Sensitization Notation		

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage of spillage if safe to do so. Do not let product enter drains.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a)	Appearance	Form: Solid @ 18°C
b)	Odor	Musty
c)	Odor Threshold	No data available
d)	pH	~ 7
e)	Melting point/freezing point	25° C (77° F)
f)	Initial boiling point and boiling range	No data available
g)	Flash point	> 94° C (201° F) (Pensky-Martens closed cup)
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Flammability or explosive limits	
	Upper	No data available
	Lower	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	1.168-1.188 (25° C (77° F))
n)	Water solubility	Negligible
o)	Partition coefficient: n- octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

Other safety information

No data available

Section 10: Stability and Reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions. However, this material can undergo hazardous polymerization.

Possibility of hazardous reactions

Hazardous polymerization may occur. Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Conditions to avoid

This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat. Avoid direct sunlight. Do NOT expose to ultraviolet light.

Incompatible materials

Strong oxidizing agents, strong bases, oxygen, polymerizing initiators, peroxides

Hazardous decomposition products

Thermal decomposition giving flammable and toxic products- Carbon oxides, Acrylates, Hazardous organic compounds

Other decomposition products- no data available

In the event of fire: see section 5

Section 11: Toxicological Information**Information on toxicological effects****Acute toxicity**

Oral: Acute toxicity estimate 3,857 mg/kg

Dermal: Acute toxicity estimate > 5,000 mg/kg

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/eye irritation

Causes serious eye damage

Respiratory or skin sensitization

May cause an allergic skin reaction. Guinea pig maximization test (Guinea pig) Weak skin sensitizer. Possible cross sensitization with other acrylates and methacrylates

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Possible cross sensitization with other acrylates and methacrylates

Section 12: Ecological Information**Toxicity**

No data available

Persistence and degradability

Not readily biodegradable (28 d) 6 – 14%/ present as a component of the test mixture

New Jersey Right to Know Components

2-Propenic acid, 2,2-bis[[[1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl ester 4986-89-4

2-Propenic acid, 2-(hydroxymethyl)-2-[[[1-oxo-2-propenyl]oxy]methyl]-1,3-propanediyl ester 3524-68-3

California Prop. 65 Components

This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

Section 16: Other Information

HMIS Rating

Health: 2
Flammability: 1
Reactivity: 0

NFPA Rating

Health: 2
Flammability: 1
Reactivity: 0

This material is intended for laboratory use only. It is not sold or intended for drug, household or other uses. The information represents the most accurate and complete data currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.