



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: Tetrahydrofurfuryl acrylate **Molecular Formula:** C₄H₂O₃
Catalog Number: M-177
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 corrosion Category 1B, H314
Serious eye damage, Category 1, H318
Skin sensitization, Category 1, H317
Reproductive toxicity, Category 2, H361

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions
P261 Avoid breathing gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281 Use personal protective equipment as required.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously 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.

P310 Immediately call a POISON CENTER or doctor/physician.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

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 (%)
Tetrahydrofurfuryl acrylate	2399-48-6	100

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

In case of contact, immediately flush skin with plenty of water for a least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact

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

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately. If victim is fully conscious, give a cupful of water.

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

No data available

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. 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

Do not get on skin, in eyes or on clothing. Avoid breathing vapor or mist. Do not taste or swallow. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. For precautions see section 2.

Conditions for Safe Storage, Including any Incompatibilities

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store out of direct sunlight in a cool well-ventilated place. Keep stabilizer levels constant to avoid explosive polymerization. An air space is required above the liquid in all containers; avoid storage under an oxygen free atmosphere. Inhibitor levels should be maintained- the typical shelf-life for this product is 3 months of receipt.

Store separate from: Strong oxidizing agents, Strong reducing agents, Free radical generators, Inert gas, Oxygen scavenger, peroxides

Temperature tolerance- Do not store below: 32° F (0° C)

Temperature tolerance- Do not store above: 100° F (38° C)

Specific End-Use(s)

Laboratory chemicals, Synthesis of substances

Section 8: Exposure Controls/Personal Protection

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. Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

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

Avoid breathing vapor or mist. 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. Discharge into the environment must be avoided.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a)	Appearance	Form: Liquid
b)	Odor	Pungent
c)	Odor Threshold	No data available
d)	pH	~ 7
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	> 201° F (94° C) (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	1.070 (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. 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 reducing agents, Free radical generators, Inert gas, Oxygen scavenger, Peroxides

Hazardous Decomposition Products

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

In the event of a fire, see Section 5.

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

Oral:

May be harmful if swallowed. (Rat) LD₅₀ > 2,000 mg/kg Signs: Changes in behavior

Dermal:

No data available

Inhalation:

No deaths occurred. (Rat) 4 h LC₅₀ > 3.1 mg/l (vapor)

Skin corrosion/irritation

Causes skin irritation (Rabbit) 4.8/8.0 (4 h) (occluded exposure)

Causes severe skin burns. (Rabbit) Draize Test 7.7/8.0 (24 h)

Serious eye damage/eye irritation

Causes serious eye irritation (Rabbit) Draize Test 38/110

Respiratory or skin sensitization

Not a sensitizer. LLNA: Local Lymph Node Assay (Mouse) No effect is reported

Genotoxicity

No genetic changes were observed in a laboratory test using: animal cells

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

Reproductive/Developmental Effects Screening Assay. Oral (Rat)/ Effects on fertility and offspring

Developmental toxicity: Exposure during pregnancy. Oral(Rat)/ Embryotoxic effects and adverse effects on the offspring were detected.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Repeated oral administration to Rat/ affected organ(s): spleen, testes, Thymus/ Signs: Changes in organ weights, changes in organ structure or function, clinical chemistry changes

Subchronic inhalation administration to Rat/ affected organ(s): testes. Signs: Hypospermatogenesis

Subchronic dermal administration to Rat/ affected organ(s): testes. Signs: Hypospermatogenesis

Aspiration hazard

No data available

Additional Information

No data available

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 12: Ecological Information**Toxicity**

Toxicity to fish	Practically nontoxic. <i>Oryzias latipes</i> 96 h LC50 = 1010 mg/l
Toxicity to daphnia and Other aquatic Invertebrates	Practically nontoxic. <i>Daphnia magna</i> (Water flea) 48 h EC0 > 91.7 mg/l Practically nontoxic. <i>Daphnia magna</i> (Water flea) 21 d NOEC > = 95 mg/l
Toxicity to algae	Practically nontoxic. <i>Pseudokirchneriella subcapitata</i> (Green algae) 72 h EC50 > 98.9 mg/l Practically nontoxic. <i>Pseudokirchneriella subcapitata</i> (Green algae) 72 d NOEC 98.9 mg/l

Persistence and degradability

Readily biodegradable. (28 d) Biodegradation 92%
Octanol Water Partition Coefficient: log Pow -0.14

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

Section 13: Disposal Considerations**Waste treatment methods****Product**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information**DOT (US)**

UN number: 3265 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, acidic, organic, n.o.s.(Tetrahydrofurfuryl acrylate)
Marine pollutant: No

IMDG

UN number: 3265 Class: 8 Packing group: III
Proper shipping name: Corrosive liquid, acidic, organic, n.o.s.(Tetrahydrofurfuryl acrylate)
Marine pollutant: No

IATA

UN number: 3265

Class: 8

Packing group: III

Proper shipping name: Corrosive liquid, acidic, organic, n.o.s.(Tetrahydrofurfuryl acrylate)

Marine pollutant: No

Section 15: Regulatory Information**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right to Know Components

Tetrahydrofurfuryl acrylate	CAS No. 2399-48-6
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Pennsylvania Right to Know Components

Tetrahydrofurfuryl acrylate	CAS No. 2399-48-6
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New Jersey Right to Know Components

Tetrahydrofurfuryl acrylate	CAS No. 2399-48-6
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California Prop. 65 Components

Warning! This product contains a chemical known to the State of California to cause cancer.

Benzene, methyl-	CAS No. 108-88-3
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Section 16: Other Information**HMIS Rating**

Health:	2
Flammability:	1
Reactivity:	1

NFPA Rating

Health:	2
Flammability:	1
Reactivity:	1

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.