



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: 1,3-Butanediol dimethacrylate **Molecular Formula:** C₁₂H₁₈O₄
Catalog Number(s): M-206
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

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

Skin sensitization, Category 2, H317

GHS Label elements, including precautionary statements

Pictogram(s)



Signal Word: Warning

Hazard Statement(s)

H317 May cause an allergic skin reaction.

Precautionary Statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/vapors/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release into the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container to an approved waste disposal plant.

Hazards Not Otherwise Classified (HNOC) or Not Covered by GHS: Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation. 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.

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 (%)
1,3-Butanediol dimethacrylate	1189-08-8	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.

Inhalation

If breathed in, move person into fresh air.

Skin Contact

In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Consult a physician if symptoms occur.

Eye Contact

Immediately flush eye(s) with plenty of water.

Ingestion

If swallowed, DO NOT induce vomiting. Consult a physician. Never give anything by mouth to an unconscious person.

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 Section 11.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available

Section 5: Fire-Fighting Measures

Extinguishing Media

Suitable extinguishing media

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

Special Hazards Arising from the Substance of 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 Fire-Fighting

Wear self-contained breathing apparatus for fire-fighting if necessary.

Further Information

Use water spray to cool unopened containers. Fight fire from a protected location. Closed containers of this material may explode when subjected to heat from surrounding fire. Firefighting equipment should be thoroughly decontaminated after use.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid generation of vapors. Ensure adequate ventilation. Evacuate personnel to safe areas. Prevent further leakage or spillage if you can do so without risk. For personal protection see section 8.

Environmental Precautions

Do not let product enter drains.

Methods and Materials for Containment and Cleaning Up

Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Section 7: Handling and Storage

Precautions for Safe Handling

Avoid breathing processing vapor or mist. Avoid prolonged or repeated contact with skin. 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.

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

Control Parameters

Components with Workplace Control Parameters

Contains no substances with occupational exposure limit values.

Exposure Controls

Appropriate Engineering Controls

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

Chemical goggles. 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

Impervious clothing. 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 processing 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

Do not let product enter drains.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a)	Appearance	Form: Liquid
b)	Odor	Acrylic-like
c)	Odor Threshold	No data available
d)	pH	~ 7
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	290° C (554° F)
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)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	1.011 (25° C (77° F)) Water=1 (liquid)
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

His 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, Methacrylates, Hazardous organic compounds.

In the event of a fire, see Section 5.

Information on Toxicological Effects:

Acute Toxicity

Oral: Practically nontoxic (Rat) LD50 = 14,600 mg/kg
Dermal: May be harmful in contact with skin (Rabbit) LD50 > 3,000 mg/kg
Inhalation: No deaths occurred (Mouse) 4 h LD0 > 0.89 mg/l

Skin Corrosion/Irritation

Practically non-irritating. (Rabbit) Irritation Index: < 1; MAX = 8 (24 h)

Serious Eye Damage/Eye Irritation

Not irritating (Rabbit) Irritation Index: 0

Respiratory or Skin Sensitization

May cause an allergic skin reaction. LLNA: Local Lymph Node Assay (Mouse) Produced an allergic reaction

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 probable, possible or confirmed human carcinogen by ACGIH.

NTP: 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 NTP.

OSHA: 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 OSHA.

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in a laboratory tests using: Bacteria

Both positive and negative responses for genetic changes were observed in laboratory tests on similar materials using: Animal cells

Assessment in Vivo:

No genetic changes were observed in a laboratory test using: Rats, mice

Reproductive effects

Reproductive/Developmental Effects Screening Assay. Oral (Rat)/ Reduced fertility

Specific Target Organ Toxicity – Single Exposure

No data available

Specific Target Organ Toxicity – Repeated Exposure

Repeated oral administration to Rat/ affected organ(s): Liver, stomach/ Signs: Reduced body weight, changes in food or water consumption

Chronic dermal administration to mouse/ affected organ(s): kidney/ Signs: Increased mortality

Aspiration Hazard

No data available

Additional Information:

Possible cross sensitization with other acrylates and methacrylates.

Human Experience: Skin: Allergic reactions. Sensitization described in isolated cases

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity

Toxicity to fish Harmful to fish. EC50- Leuciscus idus (Golden orfe) – 48 h 32.5 mg/l
Toxicity to Microorganisms EC10- Pseudomonas putida -16 h > 512 mg/l

Persistence & Degradability

Inherently biodegradable. (28 d) Biodegradation 74%/ The 10 day time window criterion is not fulfilled

Bioaccumulation 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. Toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service for disposal of this material.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

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

Massachusetts Right-to-Know Components

No components are subject to the Massachusetts Right to Know Act

Pennsylvania Right-to-Know Components

1,3-Butanediol dimethacrylate

CAS-No.
1189-08-8

New Jersey Right-to-Know Components

No components are subject to the New Jersey Right to Know Act

California Prop. 65 Components

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

Section 16: Other Information

HMIS Rating

Health hazard:	2
Flammability:	1
Physical Hazard:	0

NFPA Rating

Health hazard:	2
Flammability:	1
Physical Hazard:	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.