



Material Safety Data Sheet

Product No. 18035 n-Butyl Methacrylate, Stabilized

Issue Date (07-27-11)

Review Date (05-22-12)

Section 1: Product and Company Identification

Product Name: n-Butyl Methacrylate, Stabilized (Component of Glycol Methacrylate (GMA), Kit)

Synonym: 2-Methyl-2-Propenoic Acid Butyl Ester

Company Name

Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m ³	ACGIH TLV mg/m ³	NTP	IARC	OSHA regulated
n- Butyl methacrylate (97-88-1)	99.5 min	NE	NE	No	No	No
4-Methoxyphenol (MEHQ) (150-76-5)	ND	5	5	No	No	No

Section 3: Hazard Identification

Emergency overview

Appearance: Clear, colorless, mobile liquid.

Immediate effects: Flammable. Causes redness and pain. Causes eye, skin, and respiratory tract irritation. May cause reproductive and fetal effects.

Chronic Potential Health Effects: May cause reproductive and fetal effects.

Potential health effects

Primary Routes of entry: Absorbed through skin, eye contact, inhalation and ingestion.

Signs and Symptoms of Overexposure: Respiratory irritation, dizziness, nausea, loss of consciousness.

Eyes: Causes eye irritation. May cause conjunctivitis.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. May affect blood, behavior, brain, liver and metabolism.

Inhalation: May cause respiratory tract and mucous membrane irritation, with sore throat, coughing, shortness of breath, and delayed pulmonary edema. Vapors may cause dizziness or suffocation.

Chronic Exposure: Prolonged exposure may cause skin sensitization, an allergic reaction.

Chemical Listed As Carcinogen Or Potential Carcinogen: None listed.

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Flush eyes with a large amount of water for at least 15 minutes. See a physician if irritation persists.

Skin Contact: Wash affected skin areas with soap and water. See a physician if irritation persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Note to physician

Treatment: ND

Medical Conditions generally Aggravated by Exposure: Skin disorders. Possible cross sensitization with other acrylates and methacrylates.

Section 5: Fire Fighting Measures

Flash Point: 46°C

Flammable Limits: ND

Auto-ignition point: ND

Fire Extinguishing Media: Alcohol foam, CO₂, dry chemical, water spray.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH-approved or equivalent) and full protective gear. Use water spray to cool containers. Heat can cause polymerization. Heated containers can explode.

Unusual Fire and Explosion Hazards: Fight fire from a protected location - Explosion Hazard.

Hazardous combustion products: Carbon oxides (CO, CO₂).

DOT Class: Flammable liquid.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Keep spectators away.

Eliminate ignition sources. Use self-contained breathing apparatus pressure-demand, MSHA/NIOSH

approved or equivalent), impervious clothing and boots. Dike and contain spill with inert material (e.g., sand, earth). Transfer liquid to containers for recovery or disposal and solid diking

material to separate containers for disposal. Contaminated monomer may be unstable. Add extra inhibitor to prevent polymerization. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water. Product is slightly toxic to fish. Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Store out of direct sunlight. Leave air space over liquid surface in all containers. Ground all containers when transferring material. Material should only be handled by qualified, experienced professionals. Storage temperature: Do not store above: 86 °F (30 °C)
Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (30 m/min.) at the point of monomer evolution.

Personal Protection Equipment

Respiratory protection: If good ventilation is not maintained wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent).
Protective gloves: Wear appropriate chemical resistant gloves to prevent skin contact. When handling this material, gloves of the following type(s) should be worn: Nitrile rubber
Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated.
Skin protection: Wear appropriate chemical resistant protective clothing. Wash contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Eye protection: Chemical splash goggles.

Additional clothing and/or equipment: Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur.

Exposure Guidelines

See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Clear, colorless, mobile liquid.

Refractive Index: 1.4831 @ 20 °C

Viscosity: 0.92 cps

Odor (threshold): Mild, sweet odor.

Specific Gravity (H₂O=1): 0.894

Vapor Pressure (mm Hg) : >1

Vapor Density (air=1): 4.9 @ °20

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate= 1) : <1

Boiling Point: 162°C (323.6°F)
Freezing point / melting point: -50°C (-58°F)
pH: NA
Solubility in Water: 0.25g/l at 20 C
Molecular Weight: 142.20

Section 10: Stability and Reactivity

Stability: Stable under normal condition.

Conditions to Avoid: Heat, sunlight and ultraviolet light, contamination and open flames.

Materials to Avoid (Incompatibility): Reactive with oxidizing agents, reducing agents, acids, alkalis. Slightly reactive to reactive with moisture.

Hazardous Decomposition Products: Oxides of carbon.

Hazardous Polymerization: Violent polymerization can be caused by heat, moisture, and oxidizers. Butyl methacrylate polymerizes much less readily than corresponding ordinary acrylates. It is stabilized by adding methyl hydroquinone. Monomer stability is a logarithmic function of time vs. temperature. Stability is also dependent on inhibitor concentration, the presence of air.

Section 11: Toxicological Information

Results of component toxicity test performed: n-Butyl Methacrylate: Acute oral LD50, rat: 22,600 mg/kg; Acute dermal LD50, rabbit: 11,300mg/kg; Acute inhalation LC50, rat: 4,910 ppm (4 hours). Product is slightly toxic to fish.

Human experience: Teratogenic Effects: Classified possible for human. May cause adverse reproductive effects (fetotoxicity, post-implantation mortality) and birth defects (teratogenic) based on animal data.

This product **does** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Ecological Information: Biodegradability: 38% (28 days) Modified MITI test, not readily degradable. Ecotoxicological effect: Fish toxicity (LC50): 125 mg/l (72 hours, gold fish *Carassius auratus*) Bacteria toxicity (EC0): 31.7 mg/l (*Pseudomonas putida*) Bacteria toxicity (EC50) : >253.6 mg/l (*Pseudomonas putida*)

Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: When discarded this material is a hazardous waste.

RCRA #D-001 ignitable; reportable quantity 100 lbs. (40 CFR Part 302) "Superfund".

Incinerate liquid and the contaminated diking material

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Proper shipping name: n-Butyl methacrylate, stabilized

Hazard Class: 3

Packaging group: III

UN Number: UN2227

IATA: Proper shipping name: n-Butyl methacrylate, stabilized

Hazard Class: 3

Packing group: III

UN Number: UN2227

IMO: Proper shipping name: n-Butyl methacrylate, stabilized

Class: 3

Packaging group: III

UN Number: UN2227

Marine Pollutant: No

Canadian TDG: n-Butyl methacrylate, stabilized

Section 15: Regulatory Information

United States Federal Regulations

MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III: Section 311/312: Acute Health Hazard, Fire Hazard, Reactivity Hazard.

Section 313: 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.

RCRA: Not subject to the 40 CFR Part 268.30 land ban on the disposal of certain hazardous wastes.

TSCA: The components of this product are all on the TSCA Inventory.

CERCLA: Not reportable at the size we sell under 40 CFR Part 302.4

State Regulations

California Proposition 65: None listed

International Regulations

Canada WHMIS: B-3 D-2B, F

Europe EINECS Numbers: 202-615-1

Section 16: Other Information

Label Information: Flammable

European Risk and Safety Phrases: R10, R36/37/38, R43, R63. S2, S16, S33, S46

European symbols needed: XI

Canadian WHMIS Symbols: ND

HMIS® Hazard Rating: Health: **2**; Fire: **2**; Reactivity: **1**; Personal Protection: **H**

NFPA Hazard Rating: Health: **2**; Fire: **2**; Reactivity: **1**

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

MSDS Form 0013F1 V2