



Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

BTS-220

1. Product Identification

Synonyms: Propylene Glycol Monomethyl Ether Acetate; 1-Methoxy-2-Propanol Acetate
CAS No: 108-65-6
Molecular Weight: 132.16
Chemical Formula: C₄H₈O₃
Product Codes: 6304, 6314, 6333, 6343

2. Composition/Information on Ingredients

Ingredient	CAS No.	Percent	Hazardous
Propylene glycol monomethyl ether acetate	108-65-6	100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY FORM EXPLOSIVE PEROXIDES. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

SAF-T-DATA™ Ratings

(Provided here for your convenience)

Health:	Flammability:	Reactivity:	Contact:
1 - Slight	2 - Moderate	2 - Moderate	1 - Slight
Lab Protection Equip:	GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER		
Storage Color Code:	Red (Flammable)		

Potential Health Effects

Inhalation:

Inhalation of high concentrations may cause irritation to the respiratory tract.

Ingestion:

Not expected to be a health hazard via ingestion.

Skin Contact:

Not expected to be a health hazard from skin exposure.

Eye Contact:

High vapor concentrations may cause eye irritation.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

Persons with pre-existing eye disorders or impaired respiratory function may be more susceptible to the effects of this material.

4. First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire:

Flash point: 42°C (108°F) CC

Autoignition temperature: 354°C (669°F)

Flammable limits in air % by volume:

lcl: 1.5; ucl: 7.0

Flammable Liquid and Vapor! Contact with strong oxidizers may cause fire.

Explosion:

Sealed containers may rupture when heated. Above the flash point, explosive vapor-air mixtures may be formed. Vapors can flow along surfaces to distant ignition source and flash back. May form unstable peroxides which may explode spontaneously or when heated.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. After opening, purge container with nitrogen before re-closing. Periodically test for peroxide formation on long-term storage. Do not distill to near dryness. If peroxide formation is suspected, do not open or move container. Addition of water or appropriate reducing materials will lessen peroxide formation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

For Propylene Glycol Monomethyl Ether Acetate:

- AIHA Workplace Environmental Exposure Level (WEEL) - 100 ppm (TWA).

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirator (NIOSH Approved)

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airtight hood, or full-facepiece self-contained breathing apparatus.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Clear, colorless liquid.

Odor:

Sweet ether-like odor.

Solubility:

Appreciable in water.

Specific Gravity:

0.969 @ 20°C (68°F)

pH:

No information found.

% Volatiles by volume @ 21°C (70°F)

No information found.

Boiling Point:

150°C (302°F)

Melting Point:

No information found.

Vapor Density (Air=1):

4.6

Vapor Pressure (mm Hg):

3.7 @ 20°C (68°F)

Evaporation Rate (BuAc=1):

0.39

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Unstable at elevated temperatures. May form explosive

peroxides.

Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Oxidizers can cause vigorous reaction.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

For Propylene Glycol Monomethyl Ether Acetate: LD50 oral rat 8532 mg/kg; LD50 skin rabbit > 5 gm/kg.

Cancer Lists

Ingredient	—NTP Carcinogen—		IARC Category
	Known	Anticipated	
Propylene glycol monomethyl ether acetate (108-65-6)	No	No	None

12. Ecological Information

Environmental Fate:

No adverse ecological effects are expected.

Environmental Toxicity:

This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l. The EC50/48-hour values for daphnia are over 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE)
Hazard Class: 3
UN/NA: UN1993 **Packing Group:** III
Information reported for product/size: 425LB

International (Water, I.M.O.)

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE)
Hazard Class: 3
UN/NA: UN1993 **Packing Group:** III
Information reported for product/size: 425LB

15. Regulatory Information

MSDS Number: 80231

Effective Date: 12/16/2004 Supersedes: 8/24/2000

Chemical Inventory Status

Ingredient	TSCA	EC	Japan	Australia	Korea	--Canada--		
						DSL	NDSL	Phll.
Propylene glycol monomethyl ether acetate (108-65-6)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Federal, State & International Regulations

Ingredient	--SARA 302--		--SARA 313--		-RCRA-	-TSCA-
	RQ	TPQ	List	Chemical Catg.		
Propylene glycol monomethyl ether acetate (108-65-6)	No	No	No	No	CERCLA No	281.33 No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No Reactivity: No (Pure / Liquid)
 Australian Hazchem Code None allocated. Australian Poison Schedule: None allocated.
 WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings:

Health: 0 Flammability: 2 Reactivity: 0

Label Hazard Warning:

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY FORM EXPLOSIVE PEROXIDES. MAY CAUSE IRRITATION TO EYES AND RESPIRATORY TRACT.

Label Precautions:

- Keep away from heat, sparks and flame.
- Keep container closed.
- Use only with adequate ventilation.
- Avoid contact with eyes, skin and clothing.
- Wash thoroughly after handling.
- Avoid breathing vapor or mist.

Label First Aid:

If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

Disclaimer:

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