

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material Name: Permout mounting medium.
Catalogue Number: IA019, IA0195.
Other Names: Flammable liquid, n.o.s. (contains Toluene).
Recommended Use: Used as a mounting medium for microscopy.

Supplier Name: ProSciTech
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am – 5:00pm, Monday to Friday (excluding Public Holidays)

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to criteria of Hazardous Substances Information System [HSIS Worksafe Australia].

Hazardous and/or Dangerous Nature: HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Risk Phrases: R11 Highly flammable.
R38 Irritating to skin.
R65 Harmful: May cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S2 Keep out of reach of children.
S36/37 Wear suitable protective clothing and gloves.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Refer to Section 15 for Poisons Schedule.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Pure Substance (Proportion 100%):

Chemical Identity: Permout mounting medium.
Common Name(s): Flammable liquid, n.o.s. (contains Toluene).
CAS Number(s): Mixture – see below

Mixture Substance:

Ingredients	Cas Number(s)	Proportion (%)
Toluene	108-88-3	55.17
Piccolyte(B-pinene polymer)	68240-09-5	44.85

SECTION 4 - FIRST AID MEASURES

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Possible aspiration hazard. Get medical aid immediately.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes occasionally lifting the upper and lower lids. Get medical aid immediately.

Skin Contact: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

First Aid Facilities: Eyebath/eyewash, Safety shower & general washroom facilities.

Medical Attention & Special Treatment: Causes cardiac sensitization to endogenous catecholamines which may lead to cardiac arrhythmias. Do NOT use adrenergic agents such as epinephrine or pseudoepinephrine.

Additional Information: TARGET ORGANS: Kidneys, heart, central nervous system, liver.
WARNING! Flammable liquid.

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

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

Hazards from Combustion Products:

Can release vapours that form explosive mixtures at temperatures above the flashpoint (carbon monoxide, carbon dioxide). Flashpoint: 7.22°C.

Precautions for Fire Fighters:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapours can travel to a source of ignition and flash back. Flammable Liquid. Can release vapours that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water.

Hazchem Code: 3YE

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Use proper personal protective equipment, refer to Section 8.

Containment & Clean up:

Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place into a sealable container for disposal.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling:

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Empty containers retain product residue, (liquid and/or vapour), and can be dangerous. Remove contaminated clothing and wash before reuse.

Precautions for Safe Storage:

Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: Toluene:
TWA 50ppm
TWA 191mg/m³
STEL 150ppm
STEL 574mg/m³

Biological Limit Values: Toluene:
ACGIH: 50ppm; 188mg/m³; potential for skin absorption.
NIOSH: 100ppm TWA; 375mg/m³ TWA; 500ppm IDLH
OSHA-Final PELs: 200ppm TWA; C 300ppm; C 300ppm

Piccolyte (B-Pinene Polymer):
ACGIH: none listed.
NIOSH: none listed.
OSHA-Final PELs: none listed.

OSHA VACATED PELs:
TOLUENE: 100 ppm TWA; 375 mg/m³ TWA
PICCOLYTE(B-PINENE POLYMER): No OSHA Vacated
PELs are listed for this chemical.

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentration below the permissible exposure limits.

Personal Protective Equipment:

EYES: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

SKIN: Wear appropriate protective gloves to prevent skin exposure.

CLOTHING: Wear appropriate protective clothing to prevent skin exposure.

RESPIRATORS: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN

149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Yellow liquid.
Odour:	None reported.
pH:	Not available.
Vapour pressure (mm of Hg at °C):	Not available.
Vapour density:	Not available.
Boiling point/range (°C):	Not available.
Freezing/melting point (°C):	Not available.
Solubility:	Insoluble in water.
Specific gravity or density:	Not available.
Flash Point:	7.22°C.
Flammable (explosive) limits:	Lower: 1.4 Upper: 6.7
Ignition temperature:	Not available.
Additional Information:	Not available.

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Incompatible materials, ignition sources, excess heat.
Incompatible Materials:	Toluene is incompatible with bromine trifluoride, 1,3-dichloro-5,5-dimethyl-2,4-imidazolididione, dinitrogen tetroxide, concentrated nitric acid, nitric acid + sulfuric acid, silver perchlorate, strong oxidizers.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide.
Hazardous Reactions:	Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

Exposure and Health Effects:

Prolonged or repeated skin contact may cause dermatitis. May cause cardiac sensitization and severe heart abnormalities. May cause liver and kidney damage. This substance has caused adverse reproductive and fetal effects in animals. May cause central nervous system depression.

Ingestion:

Aspiration hazard. May cause irritation of the digestive tract. May cause effects similar to those for inhalation exposure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. Inhalation of vapor may cause respiratory tract irritation. May cause heart disturbances, possibly leading to cardiac arrest and death.

Eye Contact:

Causes eye irritation. May result in corneal injury. Vapors may cause eye irritation.

Skin Contact:

May cause skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis.

Human/Animal data:	Cas 108-88-3 (Toluene): Inhalation, mouse: LC50=400ppm/24H. Inhalation, rat: LC50=49 gm/m ³ /4H. Oral, rat: LD50=636mg/kg. Skin, rabbit: LD50=12124 mg/kg.
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TERATOGENICITY - Toluene: Specified developmental abnormalities included craniofacial effects involving the nose and tongue, musculoskeletal effects, urogenital and metabolic effects in studies on mice and rats by the inhalation and oral routes of exposure. Some evidence of fetotoxicity with reduced fetal weight and retarded skeletal development has been reported in mice and rats.

REPRODUCTIVE EFFECTS - TOLUENE: Effects on fertility such as abortion were reported in rabbits by inhalation. Paternal effects were noted in rats by inhalation. These effects involved the testes, sperm duct and epididymis.

No information has been found for Cas 68240-09-5 Piccolyte (B-Pinene Polymer).

Carcinogenic Category: Group 3: Not classifiable as to its carcinogenicity to humans.
Other Carcinogenic Information: Carcinogenic Category is Group 3 for Toluene, there was no data found on the carcinogenic properties of Piccolyte (B-Pinene Polymer).

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Toluene:
 Bluegill LC50 = 17mg/L/24H.
 Shrimp LC50 = 4.3ppm/96H.
 Fathead minnow LC50 = 36.2mg/L/96H.
 Sunfish (freshwater) TLm = 1180mg/L/96H.

Persistence and degradability: Toluene:
 From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades.
 Photochemically produced hydroxyl radicals degrade substance.

Mobility: Not available.

Additional Information: No information has been found for Cas 68240-09-5 Piccolyte (B-Pinene Polymer).

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Methods:
 Dispose of in a manner consistent with federal, state, and local regulations.

Special Precautions/Additional Informational:
 Harmful to environment! Do not dispose of through sewage system, do not allow material to enter drains/pipes and contaminate water supplies.

SECTION 14 - TRANSPORT INFORMATION

UN Number: UN1993
UN Proper Shipping Name: Flammable liquid, n.o.s. (contains Toluene).
Class and Subsidiary risk: 3
Packing Group: II
Special Precautions for User: Not available.
Hazchem Code: 3ME

SECTION 15 - REGULATORY INFORMATION

Poison Schedule Number: S5

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS: September 10

Comments:

- List of Publications referenced when creating this MSDS;
- Hazardous Substances Information System Consolidated Lists: Safe Work Australia.
 - APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008(2004)] 3rd Edition: National Occupational Health and Safety Commission.
 - Dangerous Goods - Initial Emergency Response Guide (SAA/SNZ HB76:1997)
 - IATA Dangerous Goods Regulations
 - Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].
 - Poisons Standard 2010 (SUSPD).

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the National code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The information published in this MSDS has been compiled from the publications listed in Section 16: to the best of our ability and knowledge these publications are considered accurate. We reserve the right to revise Material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.

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