

# MATERIAL SAFETY DATA SHEET

## Methacholine Chloride USP

### Company Information

**Manufacturer** Methapharm Inc.  
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### Identity Information

**Common Name:** Methacholine Chloride USP  
**Synonyms:** Provocholine<sup>®</sup>, Amechol, Mecholyl, Mecholyl Chloride  
**CAS Number:** 62-51-1  
**Chemical Name:** 2-(Acetyloxy)-N,N,N-trimethyl-1-propanaminium chloride  
**Therapeutic Category:** Cholinergic  
**Formula:** C<sub>8</sub>H<sub>18</sub>ClNO<sub>2</sub>  
**RTECS Number:** BR5250000

### Physical/Chemical Characteristics

**Boiling Point:** N/A  
**Specific Gravity:** N/A  
**Melting Point:** 170°C - 173°C  
**Vapor Pressure:** N/A  
**Vapor Density:** N/A  
**Evaporation Rate:** N/A  
**Solubility:** Freely Soluble in water, alcohol and chloroform.  
**Appearance and Odour:** White hygroscopic crystals. Slight odour of dead fish.

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### Fire and Explosion Hazard Data

<b>Flash Point:</b>	N/A
<b>Extinguishing Media:</b>	Water spray, carbon dioxide, dry chemical powder or polymer foam as appropriate for surrounding fire and materials.
<b>Special Fire Fighting Procedures:</b>	As with all fires, evacuate personnel to safe area. Firefighters should use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Unusual Fire and Explosion Hazards:</b>	This material is assumed to be combustible. As with all dry powders, it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity. When heated to decomposition, material emits toxic fumes under fire conditions.

### Reactivity Data

<b>Stability:</b>	Rapidly decomposed by alkalis, slowly by water.
<b>Incompatibility:</b>	Strong oxidizing agents. PROTECT FROM MOISTURE.
<b>Hazardous Decomposition or Byproducts:</b>	When heated to decomposition, material emits toxic fumes of carbon dioxide, carbon monoxide, nitrogen oxides and hydrogen chloride gas.
<b>Hazardous Polymerization:</b>	Will not occur.

### Health Hazard Data

<b>Acute Effects:</b>	May be harmful by inhalation or skin absorption. Harmful if swallowed.
<b>Signs and Symptoms of Exposure:</b>	Causes severe eye irritation. Causes skin irritation. Irritating to mucous membranes and upper respiratory tract. LD <sub>50</sub> 750 mg/kg (oral-rat)
<b>Emergency First Aid Procedures:</b>	Remove from exposure. Remove contaminated clothing. Upon eyes or skin contact, flush affected areas with copious amount of water. Assure adequate flushing by separating the eyelids with fingers. If swallowed, wash out mouth with water, provided person is conscious. CALL A PHYSICIAN. If inhaled, remove to fresh air. If breathing becomes difficult, CALL A PHYSICIAN.

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**Precautions for Safe Handling and Use**

<b>Steps to be Taken in Case Material is Released or Spilled:</b>	Wear approved respirator and chemically compatible gloves. Vacuum or sweep up spillage. Avoid dust. Place spillage in appropriate container for waste disposal. Wash contaminated clothing before reuse. Ventilate area and wash spill site.
<b>Waste Disposal Method:</b>	Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all applicable Federal, Provincial, State and local laws.
<b>Precautions to be Taken in Handling and Storage:</b>	Store in tightly closed container in a cool dry place (HYGROSCOPIC). This material should be handled and stored per label and other instructions to ensure product integrity. Do not permit eating, drinking or smoking near material. Wash thoroughly after handling. Avoid contact with eyes, skin or clothing. Avoid breathing dust or mist. Use with adequate dust control.

**Control Measures**

<b>Respiratory Protection:</b>	NIOSH approved full- face respirator with organic cartridges is recommended.
<b>Ventilation:</b>	Local exhaust: Recommended Mechanical (general): Recommended
<b>Protective Gloves:</b>	Rubber.
<b>Eye Protection:</b>	Safety goggles.
<b>Other Protective Clothing/Equipment:</b>	Appropriate laboratory apparel, protect exposed skin.

**Transportation Information**

<b>TDG</b>	Shipping Name: Not Regulated Classification: UN: Packaging Group:
<b>IATA</b>	Shipping Name: Classification: Not Regulated UN: Packaging Group:
<b>49 CFR</b>	Shipping Name: Not Regulated Classification: UN: Packaging Group:

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<b>Preparation Information</b>	
<b>Date Prepared</b>	April 9, 2007

**THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT  
BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND  
SHALL BE USED ONLY AS A GUIDE**