

Material Safety Data Sheet

Version 4.0
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : **Acetyl-β-methylcholine bromide**
 Product Number : A2126
 Brand : Sigma
 Company : Sigma-Aldrich
 3050 Spruce Street
 SAINT LOUIS MO 63103
 USA
 Telephone : +18003255832
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2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Irritant

Target Organs

Vascular system.

GHS Label elements, including precautionary statements

Pictogram



Signal word : Warning

Hazard statement(s)

H315 : Causes skin irritation.
 H319 : Causes serious eye irritation.
 H335 : May cause respiratory irritation.

Precautionary statement(s)

P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 : Wash skin thoroughly after handling.
 P271 : Use only outdoors or in a well-ventilated area.
 P280 : Wear protective gloves/eye protection/face protection.
 P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 : Call a POISON CENTER or doctor/physician if you feel unwell.
 P321 : Specific treatment (see supplemental first aid instructions on this label).
 P332 + P313 : If skin irritation occurs: Get medical advice/attention.
 P337 + P313 : If eye irritation persists: Get medical advice/attention.
 P362 : Take off contaminated clothing and wash before reuse.
 P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.
 P405 : Store locked up.
 P501 : Dispose of contents/container to an approved waste disposal plant.

HMIS Classification

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Health hazard: 2
 Chronic Health Hazard: *
 Flammability: 0
 Physical hazards: 0

NFPA Rating
 Health hazard: 2
 Fire: 0
 Reactivity Hazard: 0

Potential Health Effects

Inhalation : May be harmful if inhaled. Causes respiratory tract irritation.
Skin : May be harmful if absorbed through skin. Causes skin irritation.
Eyes : Causes eye irritation.
Ingestion : May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Methachollnebromide
 Formula : C₈H₁₈NO₂Br
 Molecular Weight : 240.14 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Methachollne bromide			
333-31-3	206-372-2	-	-

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

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Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C

hygroscopic

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Safety glasses with side-shields conforming to EN166

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form solid

Safety data

pH	no data available
Melting point	147 - 149 °C (297 - 300 °F) - lit.
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	no data available

10. STABILITY AND REACTIVITY**Chemical stability**

Stable under recommended storage conditions.

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

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 a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure (GHS)

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (GHS)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

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

Additional information**12. ECOLOGICAL INFORMATION****Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Target Organ Effect, Irritant

DSL Status
This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Methacholine bromide	CAS-No. 333-31-3
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SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 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.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components	CAS-No.	Revision Date
Methacholine bromide	333-31-3	

New Jersey Right To Know Components	CAS-No.	Revision Date
Methacholine bromide	333-31-3	

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.

16. OTHER INFORMATION

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Page 5 of 6

Further information

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Page 6 of 6

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