

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Betaine

Product Number : 61962  
Brand : Sigma

Company : Sigma-Aldrich Canada, Ltd  
2149 Winston Park Drive  
OAKVILLE ON L6H 6J8  
CANADA

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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : Oxyneurine  
(Carboxymethyl)trimethylammoniuminner salt

Formula :  $C_5H_{11}NO_2$   
Molecular Weight : 117.15 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Betaine			
107-43-7	203-490-6	-	-

**3. HAZARDS IDENTIFICATION**

**WHMIS Classification**  
Not WHMIS controlled. Not WHMIS controlled.

**HMS Classification**  
Health Hazard: 0  
Flammability: 0  
Physical hazards: 0

**Potential Health Effects**

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

**4. FIRST AID MEASURES**

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

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**In case of skin contact**  
Wash off with soap and plenty of water.

**In case of eye contact**  
Flush eyes with water as a precaution.

**If swallowed**  
Never give anything by mouth to an unconscious person. Rinse mouth with water.

**5. FIRE-FIGHTING MEASURES**

**Flammable properties**  
Flash point no data available  
Ignition temperature no data available

**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**  
Avoid dust formation.

**Environmental precautions**  
Do not let product enter drains.

**Methods for cleaning up**  
Sweep up and shovel. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE**

**Handling**  
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**  
Keep container tightly closed in a dry and well-ventilated place.  
Keep in a dry place. hygroscopic Store under inert gas.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**  
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**  
For prolonged or repeated contact use protective gloves.

**Eye protection**  
Safety glasses

**Hygiene measures**  
General industrial hygiene practice.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form powder  
Colour white

**Safety data**

pH no data available  
Melting point 301 °C (574 °F)  
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**

**Storage stability**  
Stable under recommended storage conditions.

**Materials to avoid**  
Strong oxidizing agents

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

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Intravenous - mouse - 830 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

**Signs and Symptoms of Exposure**

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

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**Ingestion** May be harmful if swallowed.

**Additional Information**

RTECS: DS5900000

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

**13. DISPOSAL CONSIDERATIONS**

**Product**  
Observe all federal, state, and local environmental regulations.

**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**

**DSL Status**  
All components of this product are on the Canadian DSL list.

**WHMIS Classification**  
Not WHMIS controlled. Not WHMIS controlled.

**16. OTHER INFORMATION****Further information**

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