

# Safety Data Sheet - Version 5.0

Preparation Date 10/10/2014

Latest Revision Date (If Revised) 3/6/2018

# 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### **1.1 Product Identifier**

Chemical Name Bromomethyl Acetate (~90%)

Catalogue # B684930

#### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

**Product Uses** To be used only for scientific research and development. Not for use in humans or animals.

#### 1.3 Details of the Supplier of the Safety Data Sheet

Company	Toronto Research Chemicals
	2 Brisbane Road
	Toronto, ON M3J 2J8
	CANADA
Telephone	+14166659696
FAX	+14166654439
Email	orders.trc@lacaroup.com

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Emergency#

<u>1.4 Emergency Telephone Number</u>

## 2. HAZARDS IDENTIFICATION

#### 2.1/2.2 Classification of the Substance or Mixture and Label Elements GHS Hazards Classification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

+1(416) 665-9696 between 0800-1700 (GMT-5)

Flammable Liquids (Category 3) Skin Irritation (Category 2) Eye Damage/Irritation (Category 2A) Specific Target Organ Toxicity, Single Exposure; Respiratory Tract Irritation (Category 3)

#### GHS Hazards Identification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Signal Word Warning

#### **GHS Hazard Statements**

H226Flammable liquid and vapour.H315Causes skin irritation.H319Causes serious eye irritation.H335May cause respiratory irritation.

#### **GHS Precautionary Statements**

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305/P351/P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

#### 2.3 Unclassified Hazards/Hazards Not Otherwise Classified

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Molecular Formula: C H BrO

**CAS Registry #:** 590-97-6

Synonyms

1-Bromomethanol 1-Acetate; Bromomethanol Acetate; Acetoxymethyl Bromide; Acetyloxymethyl Bromide;

#### 3.2 Mixtures

Not a mixture.

#### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid Measures

#### **General Advice**

If medical attention is required, show this safety data sheet to the doctor.

#### If Inhaled

If inhaled, move person to fresh air. If not breathing, give artificial respiration and consult a physician.

#### In Case of Skin Contact

Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed.

#### In Case of Eye Contact

Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

#### If Swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

#### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or section 11.

#### 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

No data available.

#### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing Media

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

#### 5.2 Special Hazards Arising from the Substance or Mixture

Hydrogen bromide, Carbon oxides

#### 5.3 Advice for Firefighters

Wear self contained breathing apparatus for fire fighting if necessary. Use personal protection equipment.

**<u>5.4 Further Information</u>** No data available.

# 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use recommended personal protective equipment (see Section 8). Adequate ventilation must be provided to ensure vapours or mists are not inhaled. Vapours are heavier than air and may accumulate in low areas. All sources of ignition, including sources of static discharge, must be removed from area.

#### **6.2 Environmental Precautions**

Material should not be allowed to enter the environment. Prevent further spillage or discharge into drains, if safe to do so.

## 6.3 Methods and Materials for Containment and Cleaning Up

Contain the spill and then collect using non-combustible absorbent material (such as clay, diatomaceous earth, vermiculite or other appropriate material). Place material in a suitable, sealable container and then dispose according to local/national regulations and guidance (see Section 13).

This Safety Data Sheet contains 16 sections. All 16 sections must be present for this document to be valid.

Molecular Weight: 152.97

EC#: 209-696-2

#### 6.4 Reference to Other Sections

For protective equipment, refer to Section 8. For disposal, see Section 13.

# 7. HANDLING AND STORAGE

# 7.1 Precautions for Safe Handling

Avoid contact with skin and eyes. Ventilation and proper handling are to be used to prevent the formation of vapours and mists. Remove all sources of ignition and take precautionary measures to prevent the buildup of electrostatic discharge (ground and bond containers as appropriate). No smoking, eating or drinking around this material. Wash hands after use.

#### 7.2 Conditions for Safe Storage, Including any Incompatibilities

Ensure container is kept securely closed before and after use. Keep in a well ventilated area and do not store with strong oxidizers or other incompatible materials (see Section 10).

Storage conditions: 4°C, Hygroscopic

#### 7.3 Specific End Uses

For scientific research and development only. Not for use in humans or animals.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control Parameters

Contains no components with established occupational exposure limits.

#### 8.2 Exposure Controls

#### **Appropriate Engineering Controls**

A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

#### **Personal Protective Equipment**

All recommendations below are advisory in nature and a risk assessment should be performed by the employer/end user prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

#### **Eye/Face Protection**

Safety glasses or safety goggles. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

#### **Skin Protection**

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements.

Gloves used for incidental exposures (splash protection) should be designated as "low chemical resistant" or "waterproof" by EU standard EN 374. Unrated gloves are not recommended.

Suggested gloves: AnsellPro nitrile gloves style 92-500 or 92-600, 5 mil thickness.

Penetration time has not been determined.

Gloves used for prolonged direct exposure (immersion) should be designated "chemical resistant" as per EN 734 with the resistance codes corresponding to the anticipated use of the material.

Suggested gloves: AnsellPro Viton/Butyl gloves style 38-612, 4/8 mil thickness.

Penetration time has not been determined.

These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection.

#### **Body Protection**

Fire resistant (Nomex) lab coat or coveralls.

#### **Respiratory Protection**

Recommended respirators are NIOSH-approved OV/Multi-Gas/P95 or CEN-approved ABEK-P2 respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

9. PHYSICAL AND CHEMICAL PROPERTIES					
9.1 Information on Basic Physical and Chemical Prop	<u>erties</u>				
A) Appearance	B) Odour				
Clear Colourless to Pale Yellow Oil	No data available				
C) Odour Threshold	D) pH				
No data available	No data available				

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E) Melting Point/Freezing Point	F) Initial Boiling Point/Boiling Range
No Data Available	No data available
G) Flash point	H) Evaporation Rate
No data available	No data available
I) Flammability (Solid/Gas)	J) Upper/Lower Flammability/Explosive Limits
No data available	No data available
K) Vapour Pressure	L) Vapour Density
No data available	No data available
M) Relative Density	N) Solubility
No data available	Chloroform (Soluble), Methanol (Slightly)
O) Partition Coefficient: n-octanol/water	P) Auto-Ignition Temperature
No data available	No data available
Q) Decomposition Temperature	R) Viscosity
No data available	No data available
S) Explosive Properties	T) Oxidizing Properties
No data available	No data available
9.2 Other Information	
no data available	
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# 10. STABILITY AND REACTIVITY

#### 10.1 Reactivity

No data available.

#### 10.2 Chemical Stability

Stable under recommended storage conditions.

#### **10.3 Possibility of Hazardous Reactions**

No data available.

#### 10.4 Conditions to Avoid

Heat, flames and sparks.

#### **10.5 Incompatible Materials**

Strong oxidizing agents, Strong bases.

#### **10.6 Hazardous Decomposition Products**

In the event of fire: See section 5. Other decomposition products: No data available.

#### 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on Toxicological Effects

#### A) Acute Toxicity

Oral LD50: No data available.

Dermal LD50: No data available.

# B) Skin Corrosion/Irritation

Moderate skin irritant.

# C) Serious Eye Damage/Irritation

Moderate eye irritant.

## D) Respiratory or Skin Sensitization

No data available

### E) Germ Cell Mutagenicity

No data available

## F) Carcinogenicity

No data available

# G) Reproductive Toxicity/Teratogenicity

No data available

# H) Single Target Organ Toxicity - Single Exposure

Moderate respiratory tract irritation.

# I) Single Target Organ Toxicity - Repeated Exposure

No data available

# J) Aspiration Hazard

No data available

# K) Potential Health Effects and Routes of Exposure

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

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# Inhalation LC50: No data available.

#### Ingestion

May be harmful if swallowed.

# Skin

May be harmful if absorbed through skin. Causes skin irritation.

# Eves

Causes eye irritation.

#### L) Signs and Symptoms of Exposure

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or section 11.

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been

# thoroughly investigated.

M) Additional Information

# RTECS: AF6300200

## **12. ECOLOGICAL INFORMATION**

#### 12.1 Toxicity

No data available.

#### 12.2 Persistance and Degradability

No data available.

#### **12.3 Bioaccumulative Potential**

No data available.

#### 12.4 Mobility in Soil

No data available.

### 12.5 Results of PBT and vPvB Assessment

No data available.

#### 12.6 Other Adverse Effects

No data available.

## **13. DISPOSAL CONSIDERATIONS**

#### 13.1 Waste Treatment Methods

#### A) Product

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

#### **B)** Contaminated Packaging

Dispose of as above.

#### C) Other Considerations

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

14. TRANSPORT INFO	RMATION			
14.1 UN Number				
DOT (US): UN3272	IATA: UN3272	IMDG: UN3272	ADR/RID: UN3272	
14.2 UN Proper Shipping Nam	<u>10</u>			
DOT (US)/IATA:				
Esters, n.o.s. (Bromometh	nyl acetate)			
IMDG/ARD/RID:				
ESTERS, N.O.S. (Bromor	nethyl acetate)			
14.3 Transport Hazard Class(	es)			
DOT (US): 3	IATA: 3	IMDG: 3	ADR/RID: 3	
14.4 Packing Group				
DOT (US): III	IATA: III	IMDG: III	ADR/RID: III	
14.5 Environmental Hazards				
DOT (US): None	IATA: None	IMDG: None	ADR/RID: None	
14.6 Special Precautions for L	<u>Jser</u>			
None				

# 15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

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#### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### A) Canada

DSL/NDSL Status: This product or a component of this product is registered on the Canadian DSL/NDSL.

# B) United States

**TSCA Status:** This product or a component is listed on the US EPA TSCA.

# C) European Union

**ECHA Status:** This product is not registered with the EU ECHA.

# 15.2 Chemical Safety Assessment

No data available

# 16. OTHER INFORMATION

# 16.1 Revision History

Original Publication Date: 10/10/2014

# 16.2 List of Abbreviations

LD50Median lethal dose of a substance required to kill 50% of a test population.LC50Medial lethal concentration of a substance required to kill 50% of a test population.LDLoLowest known lethal doseTDLoLowest known toxic doseIARCInternational Agency for Research on CancerNTPNational Toxicology Program

RTECS Registry of Toxic Effects of Chemical Substances

# 16.3 Further Information

Copyright 2015. Toronto Research Chemicals Inc. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.