



# BROMOMETHANE (13C, 99%)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 5.1

CLM-1217

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

|                               |                                        |
|-------------------------------|----------------------------------------|
| Product form                  | : Substance                            |
| Substance name                | : BROMOMETHANE (13C, 99%)              |
| EC Index-No.                  | : 602-022-00-2                         |
| EC-No.                        | : 200-813-2                            |
| CAS-No.                       | : 51624-21-6                           |
| Product code                  | : CLM-1217                             |
| Formula                       | : *CH3Br                               |
| Other means of identification | : Also applicable to:<br>CLM-1217-1-LB |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

|                                  |                             |
|----------------------------------|-----------------------------|
| Main use category                | : Professional use          |
| Industrial/Professional use spec | : For professional use only |

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.

50 Frontage Road  
Andover, MA 01810  
USA

USA: 1-800-322-1174 Int: 1-978-749-8000

[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://www.isotope.com)

### Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)

International: 1-703-741-5970 (24 hours)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

|                           |      |
|---------------------------|------|
| Press. Gas (Comp.)        | H280 |
| Acute Tox. 3 (Oral)       | H301 |
| Acute Tox. 3 (Inhalation) | H331 |
| Skin Irrit. 2             | H315 |
| Eye Irrit. 2              | H319 |
| Muta. 2                   | H341 |
| STOT SE 3                 | H335 |
| STOT RE 1                 | H372 |
| Aquatic Chronic 1         | H410 |
| Ozone 1                   | H420 |

Full text of hazard classes and H-statements : see section 16

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

R5  
Xi; R36/37/38  
Muta.Cat.3; R68  
N; R50/53  
T; R48/23/25

Full text of R-phrases: see section 16

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### GHS-US classification

|                           |      |
|---------------------------|------|
| Press. Gas (Comp.)        | H280 |
| Acute Tox. 3 (Oral)       | H301 |
| Acute Tox. 3 (Inhalation) | H331 |
| Skin Irrit. 2             | H315 |
| Eye Irrit. 2              | H319 |
| Muta. 2                   | H341 |
| STOT SE 3                 | H335 |
| STOT RE 1                 | H372 |
| Aquatic Chronic 1         | H410 |
| Ozone 1                   | H420 |

Full text of H statements : see section 16

### Adverse physicochemical, human health and environmental effects

Central nervous system. Kidneys.

## 2.2. Label elements

### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H280 - Contains gas under pressure; may explode if heated  
H301+H331 - Toxic if swallowed or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H341 - Suspected of causing genetic defects (in contact with skin, if inhaled, if swallowed)  
H372 - Causes damage to organs (central nervous system, kidneys) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed)  
H410 - Very toxic to aquatic life with long lasting effects  
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements (CLP)

: P260 - Do not breathe dust, fume, gas, mist, spray, vapors.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P301+P310 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

### GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H280 - Contains gas under pressure; may explode if heated  
H301+H331 - Toxic if swallowed or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation  
H341 - Suspected of causing genetic defects (Dermal, Inhalation)  
H372 - Causes damage to organs (central nervous system, kidneys) through prolonged or repeated exposure (Inhalation, Dermal)  
H410 - Very toxic to aquatic life with long lasting effects  
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust, fume, gas, mist, vapors, spray.  
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.

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P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER  
P302+P352 - If on skin: Wash with plenty of water  
P304+P340 - If inhaled: Remove person to fresh air and keep 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  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P311 - Call a doctor, a POISON CENTER  
P312 - Call a doctor, a POISON CENTER if you feel unwell  
P314 - Get medical advice/attention if you feel unwell.  
P321 - Specific treatment (see Hazardous component(s) for labeling on this label)  
P330 - Rinse mouth.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P410+P403 - Protect from sunlight. Store in a well-ventilated place.  
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste  
P502 - Refer to manufacturer/supplier for information on recovery/recycling.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

| Name                    | Product identifier                                                        | %   | Classification according to Directive 67/548/EEC                    |
|-------------------------|---------------------------------------------------------------------------|-----|---------------------------------------------------------------------|
| BROMOMETHANE (13C, 99%) | (CAS-No.) 51624-21-6<br>(EC-No.) 200-813-2<br>(EC Index-No.) 602-022-00-2 | 100 | R5<br>Xi; R36/37/38<br>Muta.Cat.3; R68<br>N; R50/53<br>T; R48/23/25 |

| Name                    | Product identifier                                                        | %   | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                                                                                                                                                          |
|-------------------------|---------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BROMOMETHANE (13C, 99%) | (CAS-No.) 51624-21-6<br>(EC-No.) 200-813-2<br>(EC Index-No.) 602-022-00-2 | 100 | Press. Gas (Comp.), H280<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Inhalation), H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Muta. 2, H341<br>STOT SE 3, H335<br>STOT RE 1, H372<br>Aquatic Chronic 1, H410<br>Ozone 1, H420 |

Full text of R- and H- phrases: see section 16

| Name                                          | Product identifier   | %   | GHS-US classification                                                                                                                                                                                                                    |
|-----------------------------------------------|----------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BROMOMETHANE (13C, 99%)<br>(Main constituent) | (CAS-No.) 51624-21-6 | 100 | Press. Gas (Comp.), H280<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Inhalation), H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Muta. 2, H341<br>STOT SE 3, H335<br>STOT RE 1, H372<br>Aquatic Chronic 1, H410<br>Ozone 1, H420 |

Full text of H-phrases: see section 16

### 3.2. Mixtures

Not applicable

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- |                                       |                                                                                                                                                    |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures general            | : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.                                                   |
| First-aid measures after inhalation   | : When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention. |
| First-aid measures after skin contact | : Wash with plenty of soap and water. Get immediate medical advice/attention.                                                                      |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes.                                                                                                 |
| First-aid measures after ingestion    | : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.                                 |

#### 4.2. Most important symptoms and effects, both acute and delayed

- |                                     |                                                       |
|-------------------------------------|-------------------------------------------------------|
| Symptoms/effects after inhalation   | : Toxic if inhaled. May cause respiratory irritation. |
| Symptoms/effects after skin contact | : Causes skin irritation.                             |
| Symptoms/effects after eye contact  | : Causes serious eye irritation.                      |
| Symptoms/effects after ingestion    | : Toxic if swallowed.                                 |

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- |                              |                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------|
| Suitable extinguishing media | : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). |
|------------------------------|-----------------------------------------------------------------------------------|

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

- |                                |                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions      | : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.                                                           |

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- |                      |                                                            |
|----------------------|------------------------------------------------------------|
| Emergency procedures | : Avoid breathing vapors, mist, gas. Avoid dust formation. |
|----------------------|------------------------------------------------------------|

##### 6.1.2. For emergency responders

- |                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- |                         |                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| For containment         | : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.                                                       |
| Methods for cleaning up | : Clean up immediately by sweeping or vacuum. This material and its container must be disposed of in a safe way, and as per local legislation. |

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- |                               |                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : Provide adequate ventilation to minimize dust and/or vapor concentrations.                                                                                                                   |
| Hygiene measures              | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice. |

#### 7.2. Conditions for safe storage, including any incompatibilities

- |                    |                                                                    |
|--------------------|--------------------------------------------------------------------|
| Technical measures | : Store in a well-ventilated place. Keep container tightly closed. |
| Storage conditions | : Store at room temperature away from light and moisture.          |

#### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| BROMOMETHANE (13C, 99%) (51624-21-6) |                            |                                                                                                                                                                                  |
|--------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Italy - Portugal - USA ACGIH         | ACGIH TWA (ppm)            | 1.00000000 ppm USA. ACGIH Threshold Limit Values                                                                                                                                 |
| Italy - Portugal - USA ACGIH         | Remark (ACGIH)             | Upper Respiratory Tract irritation. Skin irritation. Not classifiable as a human carcinogen. Danger of cutaneous absorption.                                                     |
| USA OSHA                             | OSHA PEL (TWA) (mg/m³)     | 3.88 mg/m³ Skin. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                         |
| USA OSHA                             | OSHA PEL (TWA) (ppm)       | 1 ppm Skin. California permissible exposure limits for chemical contaminants (Title 8, Article 107)                                                                              |
| USA OSHA                             | OSHA PEL (Ceiling) (mg/m³) | 80 mg/m³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants                                                                                        |
| USA OSHA                             | OSHA PEL (Ceiling) (ppm)   | 20 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants. California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
| USA OSHA                             | Remark (OSHA)              | Skin designation. The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples. Potential Occupational Carcinogen. See Appendix A.       |

#### 8.2. Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                                             |                                           |
|---------------------------------------------|-------------------------------------------|
| Physical state                              | : Gas                                     |
| Appearance                                  | : Compressed Gas                          |
| Molecular mass                              | : 95.93 g/mol (Labeled)                   |
| Color                                       | : Colorless                               |
| Odor                                        | : No data available                       |
| Odor threshold                              | : No data available                       |
| pH                                          | : No data available                       |
| Relative evaporation rate (butyl acetate=1) | : No data available                       |
| Melting point                               | : -94 °C (-137 °F)                        |
| Freezing point                              | : No data available                       |
| Boiling point                               | : 4 °C (39 °F) at 1,013 hPa (760 mmHg)    |
| Flash point                                 | : No data available                       |
| Auto-ignition temperature                   | : No data available                       |
| Decomposition temperature                   | : No data available                       |
| Flammability (solid, gas)                   | : No data available                       |
| Vapor pressure                              | : 1893 hPa (1,420 mmHg) at 20 °C (68 °F)  |
| Vapor pressure at 50 °C                     | : 5260 hPa (3,945 mmHg) at 55 °C (131 °F) |
| Relative vapor density at 20 °C             | : 3.3 (68 °F) - (Air = 1.0)               |
| Relative density                            | : 3.3 g/cm3 1.73 g/cm3 at 0 °C (32 °F)    |
| Solubility                                  | : No data available                       |

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|                      |                     |
|----------------------|---------------------|
| Log Pow              | : No data available |
| Log Kow              | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic   | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits     | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable if stored under recommended conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Strong oxidizing agents. Aluminum. plastics. Rubber. zinc. Alkali metals.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>). Hydrogen bromide gas.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Inhalation: Toxic if inhaled.

| BROMOMETHANE (13C, 99%) (51624-21-6) |                           |
|--------------------------------------|---------------------------|
| LD50 oral rat                        | 214 mg/kg                 |
| LC50 inhalation rat (ppm)            | 302 ppm 8 h               |
| ATE CLP (oral)                       | 100.000 mg/kg body weight |
| ATE CLP (gases)                      | 700.000 ppmV/4h           |
| ATE CLP (vapors)                     | 3.000 mg/l/4h             |
| ATE CLP (dust, mist)                 | 0.500 mg/l/4h             |

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin corrosion/irritation                           | : Causes skin irritation.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Serious eye damage/irritation                       | : Causes serious eye irritation.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Respiratory or skin sensitization                   | : Not classified                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Germ cell mutagenicity                              | : In vitro tests showed mutagenic effects.                                                                                                                                                                                                                                                                                                                                                                                                          |
| Carcinogenicity                                     | : Not classified                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Reproductive toxicity                               | : Experiments have shown reproductive toxicity effects in male and female laboratory animals.                                                                                                                                                                                                                                                                                                                                                       |
| Specific target organ toxicity – single exposure    | : May cause respiratory irritation.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Specific target organ toxicity – repeated exposure  | : Causes damage to organs (central nervous system, kidneys) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).                                                                                                                                                                                                                                                                                                |
| Aspiration hazard                                   | : Not classified                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Potential Adverse human health effects and symptoms | : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Nausea. Dizziness. Headache. Anorexia. Vomiting. Weakness. Blurred vision. Confusion. Tremor. Convulsions. Pulmonary edema. Effects may be delayed. Cyanosis. Coma. Possibly death. |
| IARC group                                          | : 3                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Symptoms/effects after inhalation                   | : Toxic if inhaled. May cause respiratory irritation.                                                                                                                                                                                                                                                                                                                                                                                               |
| Symptoms/effects after skin contact                 | : Causes skin irritation.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Symptoms/effects after eye contact                  | : Causes serious eye irritation.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Symptoms/effects after ingestion                    | : Toxic if swallowed.                                                                                                                                                                                                                                                                                                                                                                                                                               |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

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### BROMOMETHANE (13C, 99%) (51624-21-6)

|                |                                                           |
|----------------|-----------------------------------------------------------|
| LC50 fish 1    | 0.0008 mg/l 96 h                                          |
| EC50 Daphnia 1 | 2 mg/l Daphnia magna (Water flea) - 48 h - Immobilization |

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.
- Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Ecology - waste materials : Dispose of as unused product.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

- UN-No.(DOT) : 1062
- DOT NA no. : UN1062

### 14.2. UN proper shipping name

- Proper Shipping Name (DOT) : Methyl bromide
- Class (DOT) : 2.3 - Class 2.3 - Poisonous gas 49 CFR 173.115
- Hazard labels (DOT) : 2.3 - Poison gas



- DOT Special Provisions (49 CFR 172.102) : 3 - This material is poisonous by inhalation (see 171.8 of this subchapter) in Hazard Zone C (see 173.116(a) of this subchapter), and must be described as an inhalation hazard under the provisions of this subchapter.  
B14 - Each bulk packaging, except a tank car or a multi-unit-tank car tank, must be insulated with an insulating material so that the overall thermal conductance at 15.5 C (60 F) is no more than 1.5333 kilojoules per hour per square meter per degree Celsius (0.075 Btu per hour per square foot per degree Fahrenheit) temperature differential. Insulating materials must not promote corrosion to steel when wet.  
N86 - UN pressure receptacles made of aluminum alloy are not authorized.  
T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter.
- DOT Packaging Exceptions (49 CFR 173.xxx) : None
- DOT Packaging Non Bulk (49 CFR 173.xxx) : 193
- DOT Packaging Bulk (49 CFR 173.xxx) : 314;315

### 14.3. Additional information

- Emergency Response Guide (ERG) Number : 123
- Other information : No supplementary information available.
- Special transport precautions : Not dangerous.

### Overland transport

- Class (ADR) : 2 - Gases
- Hazard identification number (Kemler No.) : 26
- Classification code (ADR) : 2T



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Hazard labels (ADR) : 2.3 - Toxic gases



Orange plates :   


Tunnel restriction code (ADR) : C/D

Limited quantities (ADR) : 0

EAC : 2XE

APP : B

Excepted quantities (ADR) : E0

### Transport by sea

DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

MFAG-No : 123


### Air transport

DOT Quantity Limitations Passenger aircraft/rail : Forbidden  
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : Forbidden  
CFR 175.75)

Civil Aeronautics Law : Gases under pressure/Gases toxic under pressure

### 14.4. Environmental hazards

Dangerous for the environment : 

Other information : No supplementary information available.

### 14.5. Special precautions for user

Special transport precautions : Not dangerous.

### 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| BROMOMETHANE (13C, 99%) (51624-21-6)               |                                                                                   |
|----------------------------------------------------|-----------------------------------------------------------------------------------|
| SARA Section 302 Threshold Planning Quantity (TPQ) | Subject to reporting requirements of the United States SARA Section 302.          |
| SARA Section 311/312 Hazard Classes                | Fire hazard<br>Immediate (acute) health hazard<br>Delayed (chronic) health hazard |
| SARA Section 313 - Emission Reporting              | Subject to reporting requirements of the United States SARA Section 313.          |

### 15.2. International regulations

#### CANADA

| BROMOMETHANE (13C, 99%) (51624-21-6)                  |  |
|-------------------------------------------------------|--|
| Listed on the Canadian DSL (Domestic Substances List) |  |

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

| BROMOMETHANE (13C, 99%)(51624-21-6)                   |    |
|-------------------------------------------------------|----|
| U.S. - California - Proposition 65 - Carcinogens List | No |



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CLM-1217

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BROMOMETHANE (13C, 99%)(51624-21-6)                                 |                                                                                                                                                           |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| U.S. - California - Proposition 65 - Developmental Toxicity         | Yes                                                                                                                                                       |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | Yes                                                                                                                                                       |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male   | Yes                                                                                                                                                       |
| State or local regulations                                          | U.S. - Pennsylvania - RTK (Right to Know) List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Massachusetts - Right To Know List |

### SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

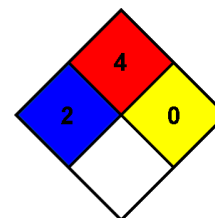
Full text of R-, H- and EUH-phrases:

|                           |                                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------------|
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhalation) Category 3                                                              |
| Acute Tox. 3 (Oral)       | Acute toxicity (oral) Category 3                                                                    |
| Aquatic Chronic 1         | Hazardous to the aquatic environment - Chronic Hazard Category 1                                    |
| Eye Irrit. 2              | Serious eye damage/eye irritation Category 2                                                        |
| Muta. 2                   | Germ cell mutagenicity Category 2                                                                   |
| Ozone 1                   | Hazardous to the ozone layer Category 1                                                             |
| Press. Gas (Comp.)        | Gases under pressure Compressed gas                                                                 |
| Skin Irrit. 2             | Skin corrosion/irritation Category 2                                                                |
| STOT RE 1                 | Specific target organ toxicity (repeated exposure) Category 1                                       |
| STOT SE 3                 | Specific target organ toxicity (single exposure) Category 3                                         |
| H280                      | Contains gas under pressure; may explode if heated                                                  |
| H301                      | Toxic if swallowed                                                                                  |
| H315                      | Causes skin irritation                                                                              |
| H319                      | Causes serious eye irritation                                                                       |
| H331                      | Toxic if inhaled                                                                                    |
| H335                      | May cause respiratory irritation                                                                    |
| H341                      | Suspected of causing genetic defects                                                                |
| H372                      | Causes damage to organs through prolonged or repeated exposure                                      |
| H410                      | Very toxic to aquatic life with long lasting effects                                                |
| H420                      | Harms public health and the environment by destroying ozone in the upper atmosphere                 |
| R36/37/38                 | Irritating to eyes, respiratory system and skin                                                     |
| R48/23/25                 | Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed |
| R5                        | Heating may cause an explosion                                                                      |
| R50/53                    | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment     |
| R68                       | Possible risk of irreversible effects                                                               |
| N                         | Dangerous for the environment                                                                       |
| T                         | Toxic                                                                                               |
| Xi                        | Irritant                                                                                            |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



### Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 4 Severe Hazard

Physical : 0 Minimal Hazard

CIL Substance SDS

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*