

# Methyl Bromide Quarantine Fumigant


## 1. IDENTIFICATION

PRODUCT IDENTIFIER: Methyl Bromide Quarantine Fumigant SDS No.: 300A-USA-CPP  
 OTHER MEANS OF IDENTIFICATION: Methyl Bromide  
 RECOMMENDED USE: Pesticide (Fumigant)

<b>DISTRIBUTOR:</b> Cardinal Professional Products P. O. Box 782 Hollister, CA 95024-0782  Customer Service: 530-666-1020 E-mail: sds@cardinalproproducts.com	<b>DISTRIBUTOR EMERGENCY TELEPHONE NUMBER:</b> Emergency Phone: 800-548-2223 (Monday – Friday, 8:00 am - 5:00 pm PDT) <b>FOR CHEMICAL EMERGENCY (Spill, Leak, Fire, Exposure, or Accident), Call CHEMTREC:</b> 800-424-9300 (24 hours) or 703-527-3887 (if outside USA)
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**NOTE TO PESTICIDE HANDLERS:** If the pesticide product end-use labeling contains specific instructions or requirements that conflict with this Safety Data Sheet (SDS), **follow the instructions or requirements on the labeling.** See Section 15 of this SDS for further information.

## 2. HAZARDS IDENTIFICATION

<b>GHS Classification</b> 	<ul style="list-style-type: none"> <li>• Gases Under Pressure, Compressed Gas</li> <li>• Acute Toxicity – Oral, Category 3</li> <li>• Acute Toxicity – Inhalation, Category 3</li> <li>• Skin Corrosion/Irritation, Category 2</li> <li>• Eye Damage/Irritation, Category 2A</li> <li>• Germ Cell Mutagenicity, Category 2</li> <li>• Specific Target Organ Toxicity, Single Exposure, Category 3 (Respiratory)</li> <li>• Specific Target Organ Toxicity, Repeat Exposure, Category 2 (Nervous system, lungs, stomach, kidney, heart)</li> <li>• Hazardous to the Aquatic Environment, Short Term (Acute) Hazard, Category 1</li> <li>• Hazardous to the Ozone Layer, Category 1</li> </ul>
<b>Signal Word</b>	<b>DANGER</b>
<b>GHS Hazard Statements</b>	<ul style="list-style-type: none"> <li>• Contains gas under pressure; may explode if heated. H280</li> <li>• Toxic if swallowed or if inhaled. H301+H331</li> <li>• Causes skin irritation. H315</li> <li>• Causes serious eye irritation. H319</li> <li>• Suspected of causing genetic defects. H341</li> <li>• May cause respiratory irritation. H335</li> <li>• May cause damage to organs (Nervous system lungs, stomach, kidney, heart) through prolonged or repeated exposure. H373</li> <li>• Very toxic to aquatic life. H400</li> <li>• Harms public health and the environment by destroying ozone in the upper atmosphere. H420</li> </ul>

## GHS PRECAUTIONARY STATEMENTS

### Prevention

- Obtain special instructions before use. P201
- Do not handle until all safety precautions have been read and understood. P202
- Do not breathe gas or vapors. P260
- Wash hands and face thoroughly after handling. P264
- Do not eat, drink, or smoke when using this product. P270
- Use only outdoors or in a well-ventilated area. P271
- Avoid release to the environment [except for authorized use] P273
- Wear protective gloves and eye protection. P280

### Response

- IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. P301+P310+P330
- IF ON SKIN: Wash with plenty of water. P302+P352
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. P304+P340+P311
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305+P351+P338
- IF exposed or concerned: Get medical attention. P308+P313
- If skin irritation occurs: Get medical attention. P332+P313
- If eye irritation persists: Get medical attention. P337+P313
- Take off contaminated clothing and wash it before reuse. P362+P364

### Storage

- Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed. P403+P233+P405
- Store locked up. P405

### Disposal

- Collect spillage. P391
- Dispose of contents and container in accordance with government regulations. (See Section 13). P501
- Refer to manufacturer or supplier for information on recovery or recycling. P502

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity	Synonyms	CAS Number	Concentration
Methyl Bromide	Bromomethane	74-83-9	100%

## 4. FIRST AID MEASURES

Inhalation	IF INHALED: Get medical attention immediately. Remove to fresh air. Keep patient warm and at rest. Keep respiratory tract clear. Give oxygen or artificial respiration if needed. Gently wipe or rinse the inside of the mouth with water
Skin	IF ON SKIN OR CLOTHING: Get medical attention immediately. Take off contaminated clothing and shoes immediately. Wash off with soap and water.
Eyes	IF IN EYES: Get medical attention immediately. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Ingestion	IF SWALLOWED: Get medical attention immediately. Never give anything by mouth to an unconscious person.
Most Important Symptoms/Effects, Acute and Delayed	Symptoms may be delayed. Dizziness, blurred vision, weakness, staggering gait, slurred speech, nausea, vomiting, and loss of appetite may occur. Effects of breathing high concentrations of vapor may include: convulsions, lung edema, lack of coordination, fatigue, and corrosive effects.
Indication of Immediate Medical Attention or Special Treatment.	Obtain medical assistance at once in case of illness after exposure, or if irritation to eyes and respiratory tract persist. Do not allow conditions that could cause further exposure until recovery is complete.

General Advice	Have the product package or label with you when calling a poison control center or doctor, or going for treatment. Do not give anything by mouth to an unconscious person.  Ensure that medical personnel are aware of the material involved, and that they take precautions to protect themselves from exposure to vapor from patient's clothing or stomach contents.
Notes to Physician	For specialist advice physicians should contact the Poisons Information Service.

## 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	All conventional fire extinguishing media are suitable: water spray, dry chemical, carbon dioxide, alcohol-resistant foam.
Unsuitable Extinguishing Media	None
Specific Hazards Arising from the Chemical including Hazardous Combustion Products	<ul style="list-style-type: none"> <li>• Container may explode if heated.</li> <li>• Burning produces noxious and toxic fumes.</li> <li>• Thermal decomposition can lead to release of irritating gases and vapors.</li> <li>• <b>NOTE:</b> Per transport regulations, cylinders are not equipped with relief valves or fusible overpressure devices.</li> </ul>
Specific Extinguishing Methods	<ul style="list-style-type: none"> <li>• Use a water spray to cool fully closed containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.</li> </ul>
Special Protective Equipment	<ul style="list-style-type: none"> <li>• Wear self-contained breathing apparatus and full turnout gear for fire situations.</li> </ul>
Precautions for Fire Fighters	<ul style="list-style-type: none"> <li>• Stay upwind.</li> <li>• DO NOT approach containers suspected to be hot.</li> <li>• Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.</li> <li>• Evacuate area at least 100 meters (330 feet), initially.</li> <li>• If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.</li> <li>• Move containers from fire area if you can do it without risk.</li> <li>• Damaged cylinders should only be handled by specialists.</li> <li>• For fires involving tanks: Cool containers with flooding quantities of water until well after fire is out.</li> <li>• For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	<ul style="list-style-type: none"> <li>• Evacuate unnecessary personnel to safe areas.</li> <li>• Keep people away from and upwind of spill/leak.</li> <li>• Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).</li> <li>• Use proper personal protective equipment (PPE) as indicated in Section 8.</li> <li>• Do not breathe gas. Emergency personnel need self-contained breathing equipment. Ventilate closed spaces before entering them.</li> <li>• Avoid contact with skin and eyes.</li> <li>• After clean-up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>• Local authorities should be advised if significant spillages cannot be contained.</li> </ul>
Environmental Precautions	<ul style="list-style-type: none"> <li>• Toxic to aquatic life.</li> <li>• Do not allow contact with soil, surface or ground water.</li> <li>• Do not flush into surface water or sanitary sewer system.</li> <li>• Do not use product nearer than 10 m from streams and lakes.</li> <li>• Contact local authorities in case of spillage to drain/aquatic environment.</li> </ul>

Methods and Materials for Containment	<ul style="list-style-type: none"> <li>• Stop leak if you can do so without risk.</li> <li>• Isolate area until gas has dispersed.</li> </ul>
Methods for Cleaning Up Small Liquid Spills  55 gallons or less	<ul style="list-style-type: none"> <li>• Isolate immediate area at least 100 feet (30 m), initially.</li> <li>• Wear recommended PPE.</li> <li>• Ensure area is well-ventilated.</li> <li>• Allow spilled fumigant to disperse/evaporate</li> <li>• Ventilate area before allowing re-entry.</li> </ul>
Methods for Cleaning Up Large Liquid Spills  > 55 gallons	<ul style="list-style-type: none"> <li>• Isolate at least 300 feet (100 m) in all directions, initially.</li> <li>• Wear self-contained breathing apparatus (SCBA) and recommended PPE (see Section 8)</li> <li>• Ensure area is well-ventilated.</li> <li>• Allow spilled fumigant to disperse/evaporate</li> <li>• Ventilate area before allowing re-entry.</li> </ul>
Other Information	<ul style="list-style-type: none"> <li>• For disposal, see Section 13.</li> </ul>

## 7. HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

This product is a highly hazardous material and must be handled with care only by certified pesticide applicators or persons under their direct supervision who are trained with its proper use. IF THE INFORMATION IN THIS SDS DIFFERS FROM THAT ON THE END USE LABELING FOR THIS PRODUCT, THE HANDLER MUST FOLLOW THE PRECAUTIONARY STATEMENTS ON THE END USE LABELING (See Section 15, FIFRA).

- Obtain special instructions before use.
- Wear appropriate personal protective equipment (see Section 8).
- Handle in accordance with good industrial hygiene and safety practices.
- Valve protection caps must remain in place unless container is secured. Close valve after each use and when container is empty.
- Do not drop, drag, slide or roll cylinders on their sides. Do not subject cylinders to rough handling or to abnormal mechanical shock. Use a suitable hand truck or forklift to move heavier cylinders.
- Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly.
- Do not heat container by any means to increase the discharge rate of product from the container. Use only dry nitrogen gas to pressurize cylinders. Polyethylene or Teflon® tubing may be used to transfer this product at low pressures. Regulator must be operated with a secondary pressure relief valve. DO NOT use high pressure hose connection between the nitrogen supplying cylinder and this product's cylinder.
- Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Take precautionary measures against static discharges.
- Do not breathe gas. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing.
- Use only outdoors or in a well-ventilated area.
- When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

### CONDITIONS FOR SAFE STORAGE

- Cylinders and containers should be tightly closed and stored in a cool, dry, well-ventilated area under lock and key (secured).
- Store upright in original container.
- Prevent electrostatic charge build-up by using common bonding and grounding techniques.
- Store out of direct sunlight at temperatures not exceeding 55 °C (131 °F).
- Store away from incompatible materials (see Section 10).
- Post as a pesticide storage area.
- Do not contaminate water, food, or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### OCCUPATIONAL EXPOSURE LIMITS (OELs) FOR METHYL BROMIDE (CAS 74-83-9)

SOURCE OF EXPOSURE LIMIT for Methyl Bromide	TYPE	VALUE	
US OSHA, Table Z-1 Limits for Air Contaminants, 29 CFR 1910.1000	Ceiling	20 ppm	80 mg/m <sup>3</sup>
US ACGIH, Threshold Limit Values (TLVs)	TWA	1 ppm	3.9 mg/m <sup>3</sup>
US NIOSH, Documentation for Immediately Dangerous to Life or Health	IDLH	250 ppm	970 mg/m <sup>3</sup>

### EXPOSURE GUIDELINES FOR METHYL BROMIDE (CAS 74-83-9)

US - California OELs: Skin designation	Can be absorbed through the skin.
US - Minnesota Hazardous Substances: Skin designation applies	Skin designation applies.
US - Tennessee OELs: Skin designation	Can be absorbed through the skin.
US ACGIH Threshold Limit Values: Skin designation	Can be absorbed through the skin.
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)	Can be absorbed through the skin.

### ENGINEERING CONTROLS

Equipment	Provide easy access to adequate water supply for eye flushing or skin decontamination in the work area. For field handling and application situations, refer to the pesticide end-use label for emergency water requirements.
Ventilation	Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### INDIVIDUAL PROTECTION MEASURES

General Hygiene	<ul style="list-style-type: none"> <li>Wash hands and face before breaks and immediately after handling product.</li> <li>Handle in accordance with good industrial hygiene and safety practice.</li> <li>Use personal protective equipment as required.</li> <li>Keep working clothes separate.</li> </ul>
Minimum Protection	When performing tasks with NO potential for liquid contact, handlers and applicators must wear: <ul style="list-style-type: none"> <li>Long-sleeved shirt and long pants, and</li> <li>Shoes and socks</li> </ul>
Eye and Face Protection	Full face shield or safety glasses with brow and temple shields. Do NOT wear goggles.
Skin Protection	<p><b>Hand protection:</b> For formulators and non-end-use handlers and applicators, do not wear chemical-resistant gloves when handling this product unless performing tasks with potential for contact with liquid fumigant. Methyl bromide trapped inside gloves can cause skin injury.</p> <p><b>Other:</b> Wear loose, long-sleeved shirts, long trousers and socks that are cleaned after each wearing. Do not wear jewelry or other gas-confining apparel.</p> <p>For clean-up, wear chemical resistant gloves, footwear, and clothing or coveralls such as Tychem or Saranex.</p> <ul style="list-style-type: none"> <li>- Incidental contact: &lt; 10 minutes. Nitrile, butyl rubber or neoprene gloves are acceptable.</li> <li>- More than incidental (Longer protection): &gt; 10 minutes. Viton or Silver Shield ® gloves are recommended.</li> </ul> <p>For EPA end-use handlers (including applicators):</p> <p>When performing tasks with NO potential for contact with liquid fumigant:</p> <ul style="list-style-type: none"> <li>- Wear long-sleeved shirt, long pants, shoes and socks.</li> <li>- Do not wear jewelry, goggles, tight clothing, chemical-resistant gloves, rubber protective clothing, or rubber boots when handling.</li> </ul>

	<p>When performing tasks with potential for contact with liquid fumigant:</p> <ul style="list-style-type: none"> <li>- Wear long-sleeved shirt, long pants, shoes and socks.</li> <li>- Wear chemical resistant gloves, apron, and footwear with socks, plus protective eyewear (do not wear goggles).</li> </ul> <p>In all working situations, if liquid or vapor exposure occurs, remove gloves, apron and footwear as soon as possible and discard as appropriate.</p>
<p>Respiratory</p> <p>NOTE: Only NIOSH certified respirators may be used for Respiratory Protection</p>	<p>For non-handlers and non-applicators:</p> <ul style="list-style-type: none"> <li>- If working in an environment where the eyes are stinging and watery due to exposure to this product, wear a NIOSH-approved full facepiece respirator with an organic vapor cartridge.</li> </ul> <p>For all EPA handlers (including applicators):</p> <ul style="list-style-type: none"> <li>- When an air-purifying respirator is required under the end-use label's Directions for Use, Protection for Handlers, Respiratory Protection and/or Stop Work Triggers section, handlers (including applicators) must wear a NIOSH-certified full-facepiece air-purifying respirator with cartridges certified by the manufacturer for protection from exposure to methyl bromide at concentrations up to 5 ppm (e.g., a 3M air-purifying respirator equipped with 3M Model 60928 Organic Vapor/Acid Gas/P100 cartridges).</li> </ul> <p>Emergency or planned entry into unknown concentrations or IDLH conditions:</p> <ul style="list-style-type: none"> <li>- Any self-contained breathing apparatus that has a full face piece and is operated in a pressure-demand or other positive-pressure mode.</li> </ul> <p>Escape:</p> <ul style="list-style-type: none"> <li>- Air-purifying respirator equipped with full facepiece and an organic vapor cartridge.</li> <li>- Any air-purifying hood style CBRN escape-certified respirator.</li> <li>- Air-purifying respirator with canisters (TC-14G) that include the escape gas mask (canister) respirator, the gas mask (canister) respirator, and the filter self-rescuer.</li> <li>- Any self-contained breathing apparatus with hood or full-facepiece mask.</li> </ul> <p>Respirators certified "escape only" can only be used for escape purposes and CANNOT be used for responding to emergencies.</p>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless Gas
Odor	Odorless
Odor Threshold	No data available
pH	Not applicable
Melting Point	Not applicable
Freezing Point	Not applicable
Boiling Point	3.6 °C (38.5 °F)
Boiling Range	Not available
Evaporation Rate	Not applicable
Flash Point (°C)	Not applicable
Flammability (solid, gas)	Not ordinarily considered to be combustible; however, it will burn in air in the presence of a high energy source of ignition and within a narrow flammability range. (NFPA)
Flammability Limits in air, Upper % by volume	ca. 15%
Flammability Limits in air, Lower % by volume	ca. 10%
Autoignition Temperature	No data available
Vapor Pressure	1,866.5 hPa @ 20 °C (68 °F) 3,466.4 hPa @ 40 °C (104 °F)
Vapor Density	ca. 3.27 (air = 1)
Relative Density (g/cm <sup>3</sup> ) (Specific Gravity)	1.7 @ 0 °C (32 °F)
Density	13.99 lbs./gal @ 20 °C (68 °F)
Solubility(ies)	17.5 g/L in water

Partition Coefficient (n-octanol/water)	$\log (P_{ow}) = 1.19$ (HSDB)
Decomposition Temperature	No data available
Viscosity of Product	Not applicable

## 10. STABILITY AND REACTIVITY

Reactivity	No dangerous reactions known under conditions of normal use.
Chemical Stability	No decomposition if stored and applied as directed.
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.
Conditions to Avoid	None known.
Incompatible Materials	Aluminum, Zinc, Alkali metals, Strong bases
Hazardous Decomposition Products	Bromine, Carbon dioxide (CO <sub>2</sub> ), Carbon monoxide, Hydrogen halides

## 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	<ul style="list-style-type: none"> <li>Inhalation</li> <li>Skin contact</li> <li>Eye contact</li> <li>Ingestion</li> </ul>
Signs & Symptoms of Exposure	Vapor Contact: <ul style="list-style-type: none"> <li>Eye, skin, respiratory system irritation</li> <li>Dizziness, malaise, nausea, vomiting</li> <li>Incoordination, hand tremor, visual disturbance</li> <li>Difficulty breathing, muscle weakness, headache, convulsions</li> </ul> Liquid Contact: <ul style="list-style-type: none"> <li>Frostbite</li> </ul>
Specific Target Organ Toxicity	<ul style="list-style-type: none"> <li>Skin, Eyes, Respiratory System, Central Nervous System</li> <li>Single exposure may cause respiratory tract irritation.</li> </ul>
Delayed and Immediate Effects	<ul style="list-style-type: none"> <li>Methyl bromide is a poison and can cause respiratory distress, cardiac arrest, and central nervous system effects.</li> <li>Overexposure may cause neurotoxic effects from which recovery may be slow.</li> </ul>

### CHRONIC EFFECTS

Chronic Effects	Causes damage to organs through prolonged or repeated exposure.
Specific Target Organ Toxicity	Repeated-Dose Toxicity: Subchronic inhalation studies in mice, rats, and dogs established target organs of nervous system, lungs, stomach, kidney, and heart with No Observed Effect Levels (NOELs) between 20 and 30 ppm.
Respiratory or Skin Sensitization	Data not available
Carcinogenicity	IARC - International Agency for Research on Cancer: Group 3: Not classifiable as to its carcinogenicity to humans NTP - National Toxicology Program: Not listed OSHA - US Occupational Safety and Health Administration: Not listed ACGIH A4: Not classifiable as a human carcinogen
Genotoxicity	Methyl bromide demonstrates genotoxicity in several test systems at levels above the TLV.
Aspiration Hazard	No aspiration toxicity classification.

## ANIMAL TOXICOLOGY STUDIES

302 ppm (1170 mg/m <sup>3</sup> )	Acute Inhalation LC <sub>50</sub> Rat: 8 Hour (for males with 95% confidence limit of 302 ppm (1170 mg/m <sup>3</sup> ))
650 - 900 ppm (2500 - 3500 mg/m <sup>3</sup> )	Acute Inhalation LC <sub>0-100</sub> Rat: 4 Hour (CMA Methyl Bromide Emergency Response Guide)
104 mg/kg 133 mg/kg	Acute Oral LD <sub>50</sub> Rat, 2 GLP studies (1994)

## 12. ECOLOGICAL INFORMATION

Ecotoxicity	Very toxic to aquatic life.
Aquatic Toxicity	<ul style="list-style-type: none"> <li>Guppy: EC<sub>50</sub> = 0.0016 mg/L, 24 Hr, Renewal</li> <li>Rainbow Trout: EC<sub>50</sub> = 3.9 mg/L; 96 Hr</li> </ul>
Terrestrial Toxicity	Toxic to terrestrial vertebrates and invertebrates.
Persistence and Degradability	This substance is not considered to be persistent, bioaccumulative, and toxic (PBT).
Bioaccumulative Potential	Due to low log P <sub>ow</sub> (<5.0) Methyl bromide is not expected to bioaccumulate.
Mobility in Soil	Not available.
Other Adverse Effects	Harms public health and the environment by destroying ozone in the upper atmosphere.
Partition Coefficient (n-octanol/water)	log (P <sub>ow</sub> ) = 1.19 (HSDB)
Additional Information	Do not contaminate water with the product or its container (Do no clean application equipment near surface water / Avoid contamination via drains from farmyards and roads).

## 13. DISPOSAL CONSIDERATIONS

Cylinder Management	<ul style="list-style-type: none"> <li>Cylinders should be returned according to instructions on the cylinder.</li> <li>Close the valve when the cylinder is empty and install the safety cap(s) and bonnet.</li> <li>Do not ship cylinders without safety caps or valve protection bonnets.</li> <li>When a cylinder is partially full and there is no further requirement for the product, contact the distributor for return instructions.</li> </ul>
Safe Handling	<ul style="list-style-type: none"> <li>Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a national pollutant discharge elimination system (NPDES) permit.</li> <li>Do not discharge effluent containing this product to sewer systems.</li> </ul>
Refillable Container	<ul style="list-style-type: none"> <li>Only the registrant or distributor is allowed to refill pesticide into containers. Do not reuse this container for any other purpose.</li> </ul>
Disposal of Product	<ul style="list-style-type: none"> <li>Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law.</li> <li>If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, the Hazardous Waste representative at the nearest EPA Regional Office, or the product manufacturer or distributor for guidance.</li> </ul>
Container Disposal	<ul style="list-style-type: none"> <li>Containers are the property of the registrant or distributor and must be returned promptly after use for refilling or for disposal.</li> </ul>



## 14. TRANSPORT INFORMATION

US DOT, TDG, IMDG

UN Number	UN1062
Proper Shipping Name	Methyl Bromide
Transport Hazard Class(es)	2.3
Packing Group	Not applicable
Toxic-Inhalation Hazard	Yes
Hazard Zone	C
Environmental Hazards	Not listed
Marine Pollutant	Not listed
Hazardous Substance	Reportable Quantity (RQ) is 1,000 lbs
Labels/Placards	US DOT: Class 2.3, Poison Gas IMDG, TDG, ADR, United Nations: Class 2.3, Toxic Gas
Air Transport (IATA/ICAO)	Forbidden for any amount
Emergency Guide	123 (NAERG – North American Emergency Response Guide)
IMDG EmS	F-C Non-Flammable Gases S-U Spillage Schedule: Gases (Flammable, Toxic, or Corrosive)
Special Precautions	Packages must be secured against all movement during transport. Keep markings, labels or placards on package until cleaned and purged of residue including bulk and non-bulk packages. For cylinders, ensure valve is closed and safety cap(s) and valve protection are in place prior to transport.

## 15. REGULATORY INFORMATION

### U.S FEDERAL

OSHA This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

DEA Drug Enforcement Administration – 21 CFR 1308.11-15 – Not controlled.

### FIFRA

This chemical is a pesticide product registered by the U.S. Environmental Protection Agency and is subject to certain labeling requirements under US federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

### POISON, DANGER

Extremely hazardous liquid and vapor under pressure. Fatal if inhaled or swallowed. Corrosive. Causes skin burns and irreversible eye damage, both of which may have a delayed onset. Do not breathe vapor or gas. Inhalation may cause serious acute illness or delayed lung, nerve, or brain injury. Do not get in eyes, on skin or on clothing. Methyl bromide vapor is odorless and non-irritating to skin and eyes during exposure. Exposure to toxic levels may occur without warning or detection by the user.

This fumigant is a highly hazardous material and must be handled with care only by certified applicators or persons under their direct supervision who are trained with its proper use. Consult your dealer representative or the distributor for correct procedure before using. Read and follow all label directions and product literature specific to your requirements.

### CERCLA - Superfund): (SARA Title III)

Section 302.4 (RQ)	Methyl Bromide is listed with an RQ (Reportable Quantity) of 1,000 lbs.
Section 302, EHS (TPQ)	Methyl Bromide has a TPQ (Threshold Planning Quantity) of 1,000 lbs.
Section 311/312 (Tier II)	Yes
SARA Hazard Codes	Methyl Bromide, CAS# 74-83-9 Immediate Hazard - Yes, Pressure Hazard - Yes

Section 313 (Supplier Notification)	This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of EPCRA section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):		
	<b>CAS Registry Number</b>	<b>Chemical Name</b>	<b>% by Weight</b>
	74-83-9	Methyl Bromide	100

RCRA - Resource Conservation and Recovery Act - Hazardous Wastes

Listed U or P	Methyl Bromide is listed as a Hazardous Waste under RCRA Waste Number U029
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TSCA - Toxic Substances Control Act

TSCA Inventory List, Section 8(b):	Methyl Bromide, CAS# 74-83-9 is listed
Health & Safety Reporting List, Section 8(d)	Not currently listed (Sunset date was 06-01-97)
Chemical Test Rules, Section 4	Not listed under these rules
Export Notification, Section 12b	Not listed under this section
TSCA Significant New Use Rule, Section 5(a)	Not listed under this rule

Clean Air Act

Hazardous Air Pollutants	Methyl Bromide is listed as a HAP
Class 1 or 2 Ozone depleters	Methyl Bromide is listed as a Class 1 depletor

Clean Water Act / Oil Pollution Act of 1990

Section 311 (40 CFR 110)	Not listed
Hazardous Substances	Not Listed
Priority or Toxic Pollutants	Listed as a Priority Pollutant and Toxic Pollutant

**STATE**

Methyl Bromide can be found on the following state right-to-know lists: Louisiana, Massachusetts, New Jersey, Pennsylvania, Rhode Island
California Proposition 65 – WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**International Inventories:**

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	AICS Australian Inventory of Chemical Substances	Yes
Canada	DSL Domestic Substances List	Yes
Canada	NDSL Non-Domestic Substances List	No
China	IECSC Inventory of Existing Chemical Substances in China	Yes
Europe	EINECS European Inventory of Existing Commercial Chemical Substances	Yes
Europe	ELINCS European List of Notified Chemical Substances	No
Japan	ENCS Inventory of Existing and New Chemical Substances	Yes
Japan	ISHL Industrial Safety and Health Law Inventory	Yes
Korea	KECI Korea Existing Chemicals Inventory	Yes
Mexico	INSQ National Inventory of Chemical Substances	Yes
New Zealand	NZIoC New Zealand Inventory of Chemicals	Yes
Philippines	PICCS Philippine Inventory of Chemicals and Chemical Substances	Yes
Taiwan	TCSI Taiwan Chemical Substance Inventory	Yes
USA & Puerto Rico	TSCA Toxic Substances Control Act Inventory	Yes

\* "Yes" - all components of this product comply with the inventory requirements administered by the governing country(s).

"No" - all components of this product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. OTHER INFORMATION

**Issue date** December 01, 2015

**Version No.** 01

### **Revision History**

12-01-15 Original SDS version

### **Hazard Rating Systems**

	<b>NFPA 704*</b>
Category	Methyl Bromide
Health	3
Flammability	1
Instability	0



<b>Hazard Key</b>
4 - Severe
3 - Serious
2 - Moderate
1 - Slight
0 - Minimal

\* NFPA 704— *Standard System for the Identification of the Hazards of Materials for Emergency Response*

### **ABBREVIATIONS:**

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement concerning the Internal Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
EC <sub>50</sub>	Half Maximal Effective Concentration - concentration of a material in water, a single dose which is expected to cause a biological effect on 50% of a group of test species.
EPCRA	Emergency Planning and Community Right-to-Know
HSDB	Hazardous Substances Database
IDLH	Immediately Dangerous to Life and Health - the maximum airborne concentration from which one could escape [within 30 minutes] without any escape-impairing symptoms or any irreversible health effects.
IMDG	International Maritime Dangerous Goods
LC <sub>50</sub>	Lethal Concentration - median dose at which 50% of test animals die from inhalation
LD <sub>50</sub>	Lethal Dose - median dose at which 50% test animals die from oral or dermal exposure
NFPA	National Fire Protection Association
NOEL	No Observed Effect Level
OSHA	Occupational Health and Safety Administration
ppm	part per million
PPE	Personal Protective Equipment
SARA	US EPA Superfund Amendments and Reauthorization Act
TDG	Transport of Dangerous Goods (Canada)
TWA	Time Weighted Average airborne concentration for a worker in an 8 hour day
US DOT	United States Department of Transportation

### **WARRANTY**

Notice: The information above is believed to be accurate and represents the best information currently available to us. Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.