	SAFETY DATASHEET	Page : 1/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

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

1.1. Product identifier

Trade name	Bromomethane
Chemical description	Bromomethane, Methyl bromid
CAS N°	74-83-9
CE N°	200-813-2
Index N°	602-002-00-2
Registration n°	Registration deadline not expired
Chemical formula	CH ₃ Br

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

Relevant identified uses	Industrial and professional Test gas/Calibration gas Laboratory use Contact supplier for more information on uses
Uses advised against	Consumer use not recommended

1.3. Details of the supplier of the safety data sheet

Company identification	MULTIGAS Route de l'Industrie 102 CH-1564 Domdidier
Phone number	+41 (0) 26 676 94 94
E-mail address	info@multigas.ch

1.4. Emergency telephone numbers


145 (Toxicology Centre Zurich) or +41 (0) 44 251 51 51
+41 (0) 26 676 94 94 (Multigas)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards	Flammable gases, Category 2	H221
	Gases under pressure : Liquefied gas	H280
	Acute toxicity (oral), Category 3	H301

	SAFETY DATASHEET	Page : 2/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Acute toxicity (inhalation: gas) Category 2	H330
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Germ cell mutagenicity, Category 2	H341
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the ozone layer — category 1	H420

For the complete H-sentences texts mentioned in that chapter, refer to Section 16

2.2. Label elements

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

Hazard pictograms



GHS04 GHS06 GHS08 GHS09

Signal word

Danger

Hazard statements

H221	Flammable gas
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H420	Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements

P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P260	Do not breathe gas, vapours

Bromomethane
MTG009

P280	Wear protective gloves, protective clothing, eye protection, face protection
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P304+P340+P315	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice / attention
P305+P351+P338+P315	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice / attention
P308+P313	IF exposed or concerned: Get medical advice
P332+P313	If skin irritation occurs: Get medical advice/attention
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P381	In case of leakage, eliminate all ignition sources
P410+403	Protect from sunlight. Store in a well-ventilated place
P405	Store locked up

2.3. Other hazards

None

SECTION 3: Composition/information on ingredients
3.1. Substances

Name	Product identifier	Concentration	Classification
Bromomethane	(CAS-No.) 74-83-9 (EC-No.) 200-813-2 (EC Index-No.) 602-002-00-2 (Registration-No.) --	<= 100%	Flam. Gas 2, H221 Press. Gas (Liq.), H280 Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Inhalation: gas), H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 Ozone 1, H420


For the complete H-sentences texts mentioned in that chapter, refer to Section 16

Contains no other components or impurities which will influence the classification of the product

3.2. Mixtures

Not established

SECTION 4: First aid measures

	SAFETY DATASHEET	Page : 4/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

4.1. Description of first aid measures

General advice	See a doctor. Show this safety data sheet to the attending physician
In case of inhalation	In case of inhalation, remove the person from the contaminated area. In case of respiratory arrest, give artificial respiration. See a doctor
In case of skin contact	Remove contaminated clothing and shoes immediately. Wash with soap and plenty of water. Take victim immediately to hospital. See a doctor
In case of eyes contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor
In case of ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. See a doctor

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

May cause irritation to cornea (with temporary disturbance to vision)
 May cause irritation to skin
 May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing
 May act principally on the central nervous system, with death resulting from respiratory paralysis
 Prolonged exposure to small concentrations may result in pulmonary oedema
 May cause stomach cramps and vomiting
 Delayed adverse effects possible
 Refer to section 11

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

No data available


SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray or water mist. Dry powder. Foam
Unsuitable extinguishing media	Carbon dioxide. Do not use water jet to extinguish

5.2. Special hazards arising from the substance or mixture

Specific hazards	In case of fire or excessive heat, hazardous combustion products may be produced Exposure to fire may cause containers to rupture/explode
Hazardous combustion products	In case of fire or excessive heat, hazardous combustion products may be produced such as : carbon monoxide, hydrogen bromide, carbonyl bromide

	SAFETY DATASHEET	Page : 5/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

5.3. Additional information

Cool endangered receptacles with water spray jet from a protected position

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, spray mists or gases
 Provide adequate ventilation
 Evacuate personnel to a safe place
 Personal protective equipment, see section 8

6.2. Environmental precautions

Try to stop the leak
 Decrease vapour by water spray in the form of fog or fine droplets

6.3. Methods and material for containment and cleaning up

Ventilate the area
 Keep area evacuated and free from ignition sources until any spilled liquid has evaporated (ground free from frost)

6.4. Reference to other sections

See also sections 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes
 Avoid breathing vapour or mist
 Keep away from sources of ignition - No smoking
 For precautions, see section 2.2

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place
 Content under pressure

7.3. Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

	SAFETY DATASHEET	Page : 6/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

8.1. Control parameters

Components with occupational exposure limits

Component	CAS N°	Exposure value type	Control parameter	Source
Bromomethane	74-83-9	TWA	1 ppm	SUVA: Limit values of exposure to workstations
			3.9 mg/m ³	
		OEL	2 ppm	SUVA: Limit values of exposure to workstations
			7.8 mg/m ³	

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation
Gas detectors should be used when toxic gases may be released

8.2.2. Individual protection measures, e.g. personal protective equipment

Eye/face protection

Wear goggles and a face shield when transfilling or breaking transfer connections. Standard EN 166

Skin / hand protection

Wear protective gloves when handling gas cylinders. Standard EN 388- Protective gloves against mechanical hazards
Wear cold insulating gloves when transferring or disconnecting transfer lines Standard EN 511 - Insulating gloves against cold
Wearing chemical resistant gloves Standard EN 374-Protective gloves against chemicals

For short-term use

Material: Fluoroelastomer
Penetration time:> 480 min
Glove thickness: 0.7 mm

For long-term use

Material: Fluoroelastomer
Penetration time:> 480 min
Glove thickness: 0.7 mm


Have appropriate, chemical-resistant protective clothing ready for use in emergencies

Respiratory protection

When the risk assessment shows that the use of respirable respirators is appropriate, use a full face mask with EN 14387 multipurpose cartridge. If the mask is the only means of protection, use a full face respirator. Use NIOSH (US) or CEN (EU) tested and approved equipment

8.2.3. Environmental exposure controls

Avoid any spill or leak if it can be done safely

	SAFETY DATASHEET	Page : 7/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties


Appearance

• Physical state at 20°C / 101.3kPa	Gas
• Colour	Colourless
Odour	Sweetish
Odour threshold	No data available
pH	No data available
Melting point / Freezing point	-94°C
Boiling point	4°C
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Flammable gas
Explosive limits	8.6 - 20 vol %
Vapour pressure [20°C]	1.9 bar
Vapour pressure [50°C]	4.5 bar
Vapour density	No data available
Relative density, liquid (water=1)	1.7
Relative density, gas (air=1)	3.1
Water solubility	17.2 g/l
Partition coefficient n-octanol/water (Log Kow)	No data available
Auto-ignition temperature	536°C
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

Molar mass	95 g/mol
Critical temperature [°C]	194°C
Relative vapour density	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level

SECTION 10: Stability and reactivity

	SAFETY DATASHEET	Page : 8/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below

10.2. Chemical stability

Stable under recommended storage conditions

10.3. Possibility of hazardous reactions

Can form explosive mixture with air.

May react violently with oxidants.

No reactivity hazard other than the effects described in sub-sections below

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Avoid moisture in installation systems

10.5. Incompatible materials

Oxidisers, plastic, rubber, aluminium

May react with bases, copper, silver, mercury, magnesium, zinc and their alloys

May react with aluminium

Reacts with water to form corrosive acids

For additional information on compatibility refer to ISO 11114

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Chemical safety assessment

Acute toxicity

Fatal if inhaled.

Fatal intoxication possible with low concentrations

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/irritation

Causes serious eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Suspected of causing genetic defects

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure – Target organ(s)


May cause respiratory irritation.

Irritation to the respiratory tract

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Damage to kidneys and liver , central nervous system

	SAFETY DATASHEET	Page : 9/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

Ingestion hazard

No data available

SECTION 12: Ecological information

12.1. Toxicity

Assessment

Very toxic to aquatic life

12.2. Persistence 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

PBT / vPvB assessment is not available because the chemical safety assessment is not required / is not conducted

12.6. Other adverse effects

May cause pH changes in aqueous ecological systems
Harms public health and the environment by destroying ozone in the upper atmosphere

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product

Must not be discharged to atmosphere
Burn in a chemical incinerator equipped with an afterburner and scrubber
Return unused product in original cylinder to supplier

Contaminated container

Eliminate as unused product
Contact the supplier if instructions are needed


OMoD Code

16 05 04
Gases in pressure containers containing dangerous substances

SECTION 14: Transport information

14.1. UN number

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
--------------------------------------	--------------------------	--------------------------

	SAFETY DATASHEET	Page : 10/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

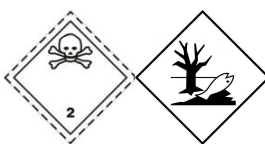
1062	1062	1062
------	------	------

14.2. UN proper shipping name

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
Methyl bromid	Methyl bromid	Methyl bromid

14.3. Transport hazard class(es)

Labelling



ADR/RID
IMDG
IATA

2.3 : Toxic gases
Environmentally hazardous substances

14.4. Packing group

ADR/RID
IMDG
IATA

Not established

14.5. Environmental hazards

ADR/RID

Environmentally hazardous substance / mixture

IMDG

Marine pollutant

ICAO-TI / IATA-DGR

Environmentally hazardous substance / mixture

14.6. Special precautions for user

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable


SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety data sheet complies with the requirements of Regulation (CE) No. 1907/2006

15.2. Chemical safety assessment

A CSA has not yet been carried out

	SAFETY DATASHEET	Page : 11/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009


SECTION 16: Other information

Indication of changes	Revised safety data sheet in accordance with commission regulation (EU) No 2015/830
Abbreviations and acronyms	<p>ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>CAS : Chemical Abstract Service number (USA)</p> <p>CLP : Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</p> <p>CSA : Chemical Safety Assessment</p> <p>EIGA : European Industrial Gases Association</p> <p>EINECS : European Inventory of Existing Commercial Chemical Substances</p> <p>EN : European Standard</p> <p>ATE : Acute Toxicity Estimate</p> <p>IATA : International Air Transport Association</p> <p>IMDG Code : International Maritime Dangerous Goods Code</p> <p>LC50 : Lethal Concentration to 50 % of a test population</p> <p>OMoD : Swiss Ordinance on the movement of waste</p> <p>PBT : Persistent, Bioaccumulative and Toxic</p> <p>PPE: Personal Protection Equipment</p> <p>REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006</p> <p>RID : Regulations concerning the international carriage of dangerous goods by rail</p> <p>RMM : Risk Management Measures</p> <p>STOT-SE : Specific Target Organ Toxicity - Single Exposure</p> <p>UN : United Nations</p> <p>vPvB : Very Persistent and Very Bioaccumulative</p> <p>WGK: Water Hazards Class</p>

Full text of H, EUH and P statements used in sections 2 and 3

Hazard statements

H221	Flammable gas
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects

	SAFETY DATASHEET	Page : 12/12
		Revised edition n° : 10.0
		Revision date : 07/2018
Bromomethane		MTG009

- H373 May cause damage to organs through prolonged or repeated exposure
- H400 Very toxic to aquatic life
- H420 Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements

- P202 Do not handle until all safety precautions have been read and understood
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P260 Do not breathe gas, vapours
- P280 Wear protective gloves, protective clothing, eye protection, face protection
- P302+P352 IF ON SKIN: Wash with plenty of soap and water
- P304+P340+P315 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice / attention
- P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice / attention
- P308+P313 IF exposed or concerned: Get medical advice
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely
- P381 In case of leakage, eliminate all ignition sources
- P410+403 Protect from sunlight. Store in a well-ventilated place
- P405 Store locked up

Disclaimer of liability

Details given in this document have been prepared based on the most available reliable documents and are believed to be correct at the time of going to press

They do not claim to be exhaustive and should be considered as a guide