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

### 1.1. Product identifier

Trade name	Methylamine
Chemical description	Methylamine
CAS N°	74-89-5
CE N°	200-820-0
Index N°	612-001-00-9
Registration n°	01-2119475496-25
Chemical formula	CH <sub>5</sub> N or CH <sub>3</sub> NH <sub>2</sub>

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

Relevant identified uses	Industrial and professional Test gas/Calibration gas Chemical reaction / Synthesis 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	<a href="mailto:info@multigas.ch">info@multigas.ch</a>

### 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 1	H220
	Gases under pressure : Liquefied gas	H280

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Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Acute toxicity (inhalation: gas) Category 4	H332
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335

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



GHS02      GHS04      GHS05      GHS07

### Signal word

Danger

### Hazard statements

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H315	Causes skin irritation
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

### Precautionary statements

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
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+P403	Protect from sunlight. Store in a well-ventilated place

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### 2.3. Other hazards

Teargas

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	Concentration	Classification
Methylamine	(CAS-No.) 74-89-5 (EC-No.) 200-820-0 (EC Index-No.) 612-001-00-9 (Registration-No.) 01-2119475496-25	> 99%	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 4 (Inhalation: gas), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

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

### 4.1. Description of first aid measures

<b>General advice</b>	See a doctor. Show this safety data sheet to the attending physician
<b>In case of inhalation</b>	In case of inhalation, remove the person from the contaminated area. In case of respiratory arrest, give artificial respiration. See a doctor
<b>In case of skin contact</b>	Remove contaminated clothing and shoes immediately. Wash with soap and plenty of water. Take victim immediately to hospital. See a doctor
<b>In case of eyes contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor
<b>In case of ingestion</b>	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 severe chemical burns to cornea. Suitable first-aid treatment should be immediately available

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

Refer to section 11

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

No data available

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

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

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

<b>Specific hazards</b>	In case of fire or excessive heat, hazardous combustion products may be produced Exposure to fire may cause containers to rupture/explode
<b>Hazardous combustion products</b>	In case of fire or excessive heat, hazardous combustion products may be produced such as : carbon monoxide, nitric oxide/nitrogen dioxide

#### **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

#### **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

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**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  
 Take precautionary measures against static discharge  
 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**

**8.1. Control parameters**

**Components with occupational exposure limits**

Component	CAS N°	Exposure value type	Control parameter	Source
Methylamine	74-89-5	TWA	10 ppm	SUVA: Limit values of exposure to workstations
			12 mg/m <sup>3</sup>	
		OEL	10 ppm	SUVA: Limit values of exposure to workstations
			12 mg/m <sup>3</sup>	

**8.2. Exposure controls**

**8.2.1. Appropriate engineering controls**

Provide adequate general and local exhaust ventilation  
 Gas detectors should be used when flammable / toxic gases / vapours are likely to 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

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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:> 30 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**

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**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** No data available

**Odour threshold** 0.025 – 12 mg/m<sup>3</sup>

**pH** No data available

**Melting point / Freezing point** -93.46°C

**Boiling point** -6.3°C

**Flash point** <-30°C (Closed cup)

**Evaporation rate** No data available

**Flammability (solid, gas)** Extremely flammable gas

**Explosive limits** 4.9 – 20.7%

**Vapour pressure [20°C]** 3 bar

**Vapour pressure [50°C]** 7.9 bar

**Vapour density** No data available

**Relative density, liquid (water=1)** 0.69

**Relative density, gas (air=1)** 1.1

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<b>Water solubility</b>	1080 g/l
<b>Partition coefficient n-octanol/water (Log Kow)</b>	-0.57
<b>Auto-ignition temperature</b>	450°C
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidising properties</b>	No data available

**9.2. Other information**

<b>Molar mass</b>	31 g/mol
<b>Critical temperature [°C]</b>	157°C
<b>Relative vapour density</b>	1.1

**SECTION 10: Stability and reactivity**
**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

**10.4. Conditions to avoid**

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

**10.5. Incompatible materials**

Oxidants, acids, acid chlorides, acid anhydrides, chloroformates, phosphorus halides  
Reacts with water to form corrosive alkalis  
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

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**SECTION 11: Toxicological information**

**11.1. Chemical safety assessment**

<b>Acute toxicity</b>	Harmful if inhaled
<b>Skin corrosion/irritation</b>	Causes skin irritation
<b>Serious eye damage/irritation</b>	Causes serious eye damage
<b>Respiratory or skin sensitisation</b>	No data available
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	No data available
<b>Reproductive toxicity</b>	No data available
<b>STOT-single exposure – Target organ(s)</b>	May cause respiratory irritation
<b>STOT-repeated exposure</b>	No data available
<b>Ingestion hazard</b>	No data available

**SECTION 12: Ecological information**

**12.1. Toxicity**

<b>Assessment</b>	Classification criteria are not met
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**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  
Harmful to aquatic life, causes long-term adverse effects



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**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

<b>Product</b>	Must not be released into the atmosphere Burn in a chemical incinerator equipped with an afterburner and scrubber Return to the supplier the product not consumed in its original container
<b>Contaminated container</b>	Eliminate as unused product Contact the supplier if instructions are needed
<b>OMoD Code</b>	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
1061	1061	1061

**14.2. UN proper shipping name**

Transport par road/rail ADR / RID	Transport by sea IMDG	Transport by air IATA
Methylamine, anhydrous	Methylamine, anhydrous	Methylamine, anhydrous

**14.3. Transport hazard class(es)**

Labelling



ADR/RID  
IMDG  
IATA

2.1 : Flammable gases

**14.4. Packing group**

ADR/RID  
IMDG  
IATA

Not established

**14.5. Environmental hazards**

ADR/RID	None
IMDG	None
ICAO-TI / IATA-DGR	None

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#### **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 been carried out

### **SECTION 16: Other information**

#### **Indication of changes**

Revised safety data sheet in accordance with commission regulation (EU) No 2015/830

#### **Abbreviations and acronyms**

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS : Chemical Abstract Service number (USA)

CLP : Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CSA : Chemical Safety Assessment

EIGA : European Industrial Gases Association

EINECS : European Inventory of Existing Commercial Chemical Substances

EN : European Standard

ATE : Acute Toxicity Estimate

IATA : International Air Transport Association

IMDG Code : International Maritime Dangerous Goods Code

LC50 : Lethal Concentration to 50 % of a test population

OMoD : Swiss Ordinance on the movement of waste

PBT : Persistent, Bioaccumulative and Toxic

PPE: Personal Protection Equipment

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006


RID : Regulations concerning the international carriage of dangerous goods by rail

RMM : Risk Management Measures

STOT-SE : Specific Target Organ Toxicity - Single Exposure

UN : United Nations

vPvB : Very Persistent and Very Bioaccumulative

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WGK: Water Hazards Class

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

**Hazard statements**

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P332+P313	If skin irritation occurs: Get medical advice/attention
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P410+P403	Protect from sunlight. Store in a well-ventilated place

**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