SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

monomethylamine, liquefied, under pressure

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

1.1. Product identifier

Product name	:	monomethylamine, liquefied, under pressure
Synonyms	:	AI3-15637-X; amine C1; aminomethane; carbinamine; mercurialin; methanamine; methylamine; methylamine, pure; monomethylamine; R-630
Registration number REACH	:	01-2119475496-25
Product type REACH	:	Substance/mono-constituent
CAS number	:	74-89-5
EC index number	:	612-001-00-9
EC number	:	200-820-0
RTECS number	:	PF6300000
Molecular mass	:	31.06 g/mol
Formula	:	CH5N

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

1.2.1 Relevant identified uses

Solvent

1.2.2 Uses advised against

See heading 15.1: Reach Annex XVII - Restriction

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

BALCHEM NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
+32 2 252 17 51
info.grimbergen@balchem.com

Distributor of the product

BALCHEM NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
+32 2 252 17 51
info.grimbergen@balchem.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Flam. Gas	category 1	H220: Extremely flammable gas.
Press. Gas	Liquefied gas	H280: Contains gas under pressure; may explode if heated.
Acute Tox.	category 4	H332: Harmful if inhaled.
STOT SE	category 3	H335: May cause respiratory irritation.
Skin Irrit.	category 2	H315: Causes skin irritation.
Eye Dam.	category 1	H318: Causes serious eye damage.

2.2. Label elements

Signal word Danger

H-statements

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

P-statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection/face protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard
On contact with water/moisture : corrosive
May cause frostbites

SECTION 3: Composition/information on ingredients

3.1. Substances

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
monomethylamine 01-2119475496-25	74-89-5 200-820-0	C>99 %	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280 Acute Tox. 4; H332 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318	(1)(10)(2)(8)	Mono-constituent

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(8) Specific concentration limits, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Take victim to a doctor if irritation persists. In case of frostbites: Wash immediately with lots of water (15 minutes) /shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.

After ingestion:

Not applicable.

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

4.2.1 Acute symptoms

After inhalation:

Irritation of the respiratory tract. Irritation of the nasal mucous membranes. EXPOSURE TO HIGH CONCENTRATIONS: Possible laryngeal spasm/oedema. Risk of pneumonia. Nosebleeding. Respiratory difficulties. FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of lung oedema.

After skin contact:

Tingling/irritation of the skin. Frostbites.

After eye contact:

Corrosion of the eye tissue. Inflammation/damage of the eye tissue. Lacrimation. Visual disturbances.

After ingestion:

Not applicable.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Water spray. Alcohol-resistant foam. BC powder.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium. Carbon dioxide ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). On heating: release of toxic/combustible gases/vapours (hydrogen cyanide).

5.3. Advice for firefighters

5.3.1 Instructions:

If no hazard for/from the surroundings: controlled burning. If hazardous substances are nearby: consider extinguishment. Extinguish only if gas supply/leak can be shut afterwards. Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gas-tight suit. Compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep upwind. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Avoid ingress of water in the containers.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gas-tight suit.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Tip the container on one side to stop the leakage. Try to reduce evaporation. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Liquid spill: take up in dry absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe strict hygiene. Remove contaminated clothing immediately. Cool before opening.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: <50 °C. Keep container in a well-ventilated place. Fireproof storeroom. Keep locked up. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Unauthorized persons are not admitted. Aboveground. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, ignition sources, combustible materials, oxidizing agents, (strong) acids, highly flammable materials, metals, halogens, alcohols, water/moisture.

7.2.3 Suitable packaging material:

Stainless steel, carbon steel.

7.2.4 Non suitable packaging material:

Copper, zinc.

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

Methylamine	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	5 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	6.4 mg/m³
	Short time value (Private occupational exposure limit value)	15 ppm
	Short time value (Private occupational exposure limit value)	19 mg/m³

Belgium

Méthylamine	Time-weighted average exposure limit 8 h	5 ppm
	Time-weighted average exposure limit 8 h	6.6 mg/m³
	Short time value	15 ppm
	Short time value	19 mg/m³

USA (TLV-ACGIH)

Methylamine	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 ppm
	Short time value (TLV - Adopted Value)	15 ppm

Germany

Methylamin	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	13 mg/m³

France

Méthylamine	Short time value (VL: Valeur non réglementaire indicative)	10 ppm
	Short time value (VL: Valeur non réglementaire indicative)	12 mg/m³

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
Methyl Amine	NIOSH	4(277)
Methyl Amine	NIOSH	6(S148)

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

monomethylamine, liquefied, under pressure

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.9 mg/m³	
	Acute systemic effects inhalation	27.7 mg/m³	
	Acute local effects inhalation	20.21 mg/m³	
	Long-term systemic effects dermal	0.417 mg/kg bw/day	
	Acute systemic effects dermal	0.58 mg/kg bw/day	

PNEC

monomethylamine, liquefied, under pressure

Compartments	Value	Remark
Fresh water	0.016 mg/l	
Marine water	0.0016 mg/l	
Aqua (intermittent releases)	0.016 mg/l	
STP	0.1263 mg/l	
Fresh water sediment	0.016 mg/kg sediment dw	

Soil	0.0069 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Exhaust gas must be neutralised.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:

Gas mask with filter type AX at conc. in air > exposure limit. Wear gas mask with filter type B if conc. in air > exposure limit. Gas mask with filter type K at conc. in air > exposure limit. Self-contained breathing apparatus if conc. in air > 1 vol %.

b) Hand protection:

Insulated gloves.

- materials (good resistance)

Tetrafluoroethylene.

- materials (less resistance)

Natural rubber.

- materials (poor resistance)

Polyethylene, PVA, PVC, neoprene, nitrile rubber.

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck protection. Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquefied gas
Odour	Irritating/pungent odour
	Ammonia odour
	Smell of fish
Odour threshold	0.02 - 3.3 ppm
Colour	Colourless
Particle size	Not applicable (gas)
Explosion limits	4.9 - 20.7 vol %
	60 - 270 g/m³
Flammability	Extremely flammable gas.
Log Kow	-0.713 ; Experimental value ; OECD 107 ; 25 °C
Dynamic viscosity	0.236 mPa.s ; 0 °C ; Test data
Kinematic viscosity	Not applicable (gas)
Melting point	-93 °C
Boiling point	-6 °C ; 1010 hPa
Flash point	Not applicable (gas)
Evaporation rate	Not applicable (gas)
Relative vapour density	1.07
Vapour pressure	3140 hPa ; 20 °C
	7800 hPa ; 50 °C
Solubility	water ; 108 g/100 ml
	ether ; Complete
	ethanol ; soluble
	methanol ; soluble
	1-butanol ; soluble
	acetone ; soluble
Relative density	1.38 ; 0 °C ; Calculated
Decomposition temperature	Not applicable
Auto-ignition temperature	430 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	11.8 ; 3 %

9.2. Other information

Critical temperature	157 °C
Critical pressure	74600 hPa

Surface tension	0.019 N/m ; 25 °C
Dissociation constant	10.42 ; Calculated value ; pKa

SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Substance has basic reaction.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts violently with many compounds e.g.: with (strong) oxidizers, with (some) acids, with oxygen compounds and with (some) halogens compounds: heat release resulting in increased fire or explosion risk. Forms with nitrites carcinogenic nitrosamines.

10.4. Conditions to avoid

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

Combustible materials, oxidizing agents, (strong) acids, highly flammable materials, metals, halogens, alcohols, water/moisture.

10.6. Hazardous decomposition products

On heating: release of toxic/combustible gases/vapours (hydrogen cyanide). On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

monomethylamine, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	698 mg/kg bw/day		Rat (male/female)	Experimental value	Aqueous solution
Dermal						Data waiving	
Inhalation (gases)	LC50	Equivalent to OECD 403	7110 ppm	1 h	Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	2.1 mg/l air - 2.9 mg/l air	4 h	Rat (male/female)	Experimental value	

As the substance is a gas, inhalation is the most likely route of exposure

Conclusion

Harmful if inhaled.

Corrosion/irritation

monomethylamine, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin	Corrosive	Equivalent to OECD 402		48 hours	Guinea pig	Experimental value	Single exposure
Inhalation (vapours)	Highly irritating	Equivalent to OECD 403	4 h		Rat	Experimental value	

The liquid form can cause frostbites, typical for all liquified gases

Conclusion

Causes serious eye damage.

Causes skin irritation.

May cause respiratory irritation.

Specific target organ toxicity, single exposure: classified as irritant to respiratory organs

Respiratory or skin sensitisation

monomethylamine, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	
Intratracheal instillation	Not sensitizing				Mouse (male)	Experimental value	

The study on skin sensitisation does not need to be conducted as the substance is a gas

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

monomethylamine, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Subchronic toxicity test	≥ 10 mg/kg bw/day	General	No effect	21.45.65.90 day(s)	Rat (male)	Experimental value
Oral (diet)	NOAEL	Subchronic toxicity test	≥ 100 mg/kg bw/day	General	No effect	21.45.65.90 week(s)	Rat (male)	Experimental value
Dermal								Data waiving
Inhalation (gases)	LOAEC	Equivalent to OECD 412	75 ppm	Nose	atrophy	2 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value

As the substance is a gas, inhalation is the most likely route of exposure

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

monomethylamine, liquefied, under pressure

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Positive without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value

Mutagenicity (in vivo)

monomethylamine, liquefied, under pressure

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474		Mouse (male)	Bone marrow	Read-across

Carcinogenicity

monomethylamine, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation								Data waiving
Dermal								Data waiving
Oral								Data waiving

Reproductive toxicity

monomethylamine, liquefied, under pressure

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	155 mg/kg bw/day	17 day(s)	Mouse	No effect		Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	155 mg/kg bw/day	17 week(s)	Mouse	No effect		Read-across
Effects on fertility	LOAEL (P)		5 mg/kg bw/day		Rat (female)	Reduced implantations	Female reproductive organ	Experimental value

Conclusion CMR

Not classified for carcinogenicity

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

monomethylamine, liquefied, under pressure

No (test)data available

Chronic effects from short and long-term exposure

monomethylamine, liquefied, under pressure

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

monomethylamine, liquefied, under pressure

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	16 mg/l	48 h	Leuciscus idus	Static system	Fresh water	Experimental value
Acute toxicity invertebrates	EC50	DIN 38412-11	163 mg/l	48 h	Daphnia magna	Static system	Fresh water	Literature; Solution <50%
Toxicity algae and other aquatic plants	EC0		4 mg/l		Scenedesmus quadricauda			Literature
Long-term toxicity fish	ChV	ECOSAR	411.43 mg/l	30 day(s)	Pisces			QSAR
Long-term toxicity aquatic invertebrates	ChV	ECOSAR	99.34 mg/l	21 day(s)	Daphnia sp.			QSAR
Toxicity aquatic micro-organisms	EC20	ISO 8192	240 mg/l	30 minutes	Activated sludge			Experimental value

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms						Data waiving
Toxicity soil micro-organisms						Data waiving
Toxicity terrestrial plants						Data waiving
Toxicity other terrestrial organisms						Data waiving
Toxicity birds						Data waiving

Conclusion

Harmful to fishes
Slightly harmful to invertebrates (Daphnia)
Toxic to bacteria
pH shift
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

monomethylamine, liquefied, under pressure

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	96 %		Literature study

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	0.48 day(s)	1.5E6 /cm³	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
Not applicable			

Conclusion

Readily biodegradable in water

12.3. Bioaccumulative potential

monomethylamine, liquefied, under pressure

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		3			Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-0.713	25 °C	Experimental value

Conclusion

Not bioaccumulative

12.4. Mobility in soil

monomethylamine, liquefied, under pressure

(log) Koc

Parameter	Method	Value	Value determination
Koc	OECD 106	389 - 449	Experimental value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.000011 atm m³/mol	SRC HENRYWIN v3.10	25 °C		Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	1.78 %		0.09 %	49.8 %	48.3 %	Calculated value

Conclusion

Low potential for adsorption in soil

12.5. Results of PBT and vPvB assessment

Substance does not meet the criteria of PBT, nor the criteria of vPvB according to Annex XIII of Regulation (EC) No 1907/2006, so is neither PBT nor vPvB.

12.6. Other adverse effects

monomethylamine, liquefied, under pressure

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing hazardous substances).
Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Regulation (EU) No 1357/2014.

13.1.2 Disposal methods

Refer to manufacturer/supplier for information on recovery/ recycling. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into the sewer.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1061

14.2. UN proper shipping name

Proper shipping name	Methylamine, anhydrous

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	2F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	662
Limited quantities	none.

Rail (RID)

14.1. UN number

UN number	1061

14.2. UN proper shipping name

Proper shipping name	Methylamine, anhydrous

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	2F

14.4. Packing group

Packing group	
Labels	2.1 (+13)

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	662
Limited quantities	none.

Inland waterways (ADN)

14.1. UN number

UN number	1061

14.2. UN proper shipping name

Proper shipping name	Methylamine, anhydrous

14.3. Transport hazard class(es)

Class	2
Classification code	2F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	662
Limited quantities	none.

Sea (IMDG/IMSBC)

14.1. UN number

UN number	1061

14.2. UN proper shipping name

Proper shipping name	Methylamine, anhydrous

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	
Limited quantities	none.

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

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN number	1061

14.2. UN proper shipping name

Proper shipping name	Methylamine, anhydrous

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	A1
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
100 %	

REACH Annex XVII - Restriction

Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· monomethylamine	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: “For professional users only”.3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	9

National legislation Germany

Schwangerschaft Gruppe	D
WGK	2; Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

National legislation France

No data available

National legislation Belgium

No data available

Other relevant data

No data available

15.2. Chemical safety assessment

SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

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.
(*) = INTERNAL CLASSIFICATION BY BIG
PBT-substances = persistent, bioaccumulative and toxic substances
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Specific concentration limits CLP

monomethylamine	C ≥ 5 %	Skin Irrit. 2; H315	CLP Annex VI (ATP 0)
	C ≥ 5 %	Eye Dam. 1; H318	CLP Annex VI (ATP 0)
	0,5 % ≤ C < 5 %	Eye Irrit. 2; H319	CLP Annex VI (ATP 0)
	C ≥ 5 %	STOT SE 3; H335	CLP Annex VI (ATP 0)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when