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Section 1 Identification of the substance/mixture and the company

- 1.1 Product identifier **Aluminium 2**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Use of substance Reagent for water analysis
- 1.3 Supplier WAPOTEC GmbH
Franz-Sauer-Strasse 44
A-5020 Salzburg
Tel: +43 662 434342-0
Fax: +43 662 434342-3
- Contact Mr. G. Weiss
Email: office@wapotec.at
- 1.4 Emergency phone +43 662 43 43 42-0
Office hours: MO - TH: 8.00 - 16.00, FR: 8.00 - 12.00
- Toxicity information centre Vienna:**
Phone: +43 1 406 43 43
Available 0-24h



Section 2 Hazards identification

- 2.1 Hazard classification of substance or mixture
-  According to Directive (EC) N° 1272/2008
- H228 Flammable solid.
- H317 May cause an allergic skin reaction.

- 2.2 Label elements

 According to Directive (EC) 1272/2008



GHS02 flame

Warning

Flam. Sol. 2 H228 Flammable solid.



GHS07

Warning

Skin Sens. 1 H317 May cause an allergic skin reaction.

- H228 Flammable solid.
 H317 May cause an allergic skin reaction.
 P210 Keep away from heat – no smoking.
 P280 Wear protective gloves.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

 Danger defining components for labeling

Methenamin (CAS: 100-97-0)

2.3 Other hazards: No further relevant information available.

Additional information: **Reserved for industrial and professional use.**



Section 3 Composition/information on ingredients

3.2 Mixtures

 Chemical characteristics

Mixture of organic and inorganic compounds

 Dangerous ingredients:

Name	CAS # / EC # / Index #	Conc %	Classification according to	
			Regulation (EC) 1272/2008*	
Methenamin	100-97-0/ 202-905-8/ 612-101-00-2	90-100	flam. sol 2 skin sens 1	H228 H317

* For the wording of H-Phrases and danger classification see section 16.

REACH - Pre-registered substances All components are REACH pre-registered.



Section 4 First-aid measures

4.1 Description of first aid measures

Remove immediately all contaminated clothing.

 After inhalation

Move affected person immediately to fresh air.
 Seek medical treatment in case of symptoms.

 After skin contact

After skin contact, wash immediately with plenty of water.

If skin irritation or rash occurs: Get medical advice/attention.
Get medical advice.

☉ After eye contact

After eye contact, rinse eye for several minutes (at least 15 minutes) under running water holding eye lids open. If symptoms persist, get medical advice.

☉ After ingestion

Rinse the mouth with plenty of water and drink at least 1-2 glasses of water.
Get medical advice if symptoms persist.

4.2 Most important symptoms and effects, acute and delayed

Allergic reaction

Irritation

After inhalation: mucous membrane irritation, cough, breathing difficulty

After swallowing of large amounts: gastric or intestinal trouble, pain, sickness, vomiting.

Danger:

Risk of skin sensitization

4.3 Indications for immediate medical attention or special treatment needed

No further relevant information available.

Section 5

Fire-fighting measures

5.1

Extinguishing media

☉ Suitable extinguishing media

Water haze

Carbon dioxide (CO₂)

Alcohol-resistant foam

Fire-extinguishing powder

☉ Unsuitable extinguishing media for safety reasons

No further information available.

5.2

Special hazards arising from the substance or mixture

Combustible

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Hydrogen cyanide (HCN)

Nitrous gases

Nitrogen oxides (NO_x)

Ammonia (NH₃)

Formaldehyde

5.3

Special protective actions for fire-fighters

☉ Special protective equipment

Wear self-contained breathing apparatus.

Wear full protective suit.

Additional information:

Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.



Section 6

Accidental release measures

- 6.1 Personal precautions, protective equipment and suitable emergency procedures.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
- 6.2 Environmental precautions
Do not allow product to reach sewage system or water bodies.
Damp down gases/fumes/haze with water spray jet.
- 6.3 Measures for cleaning/collecting:
Ensure adequate ventilation.
Collect mechanically.
Dispose of contaminated material as waste according to section 13.
- 6.4 Additional information
Information on safe handling see section 7.
Information on protective measures see section 8
Information on disposal see section 13



Section 7

Handling and storage

- 7.1 Precautions for safe handling
Ensure good ventilation/mechanical exhaustion at workplace.
- 7.2 Conditions for safe storage including any incompatibilities
- Additional information:
 - Fire and explosion protection measures
Take precautionary measures against electrostatic charges.
Dust can form an explosive mixture with air.
Keep away from ignition source – do not smoke.
 - Design of storage rooms and container
Keep container tightly sealed.
Store under dry and cool conditions.
Protect from heat and direct sunlight.
Protect from humidity and keep away from water.
Product is hygroscopic.
Protect from the effects of light.
 - Recommended storage temperature: 20°C +/-5°C
 - Material incompatibility

Store away from oxidizing agents.

☉ VbF class: 4.1B

7.3

Specific end uses

No further information available.



Section 8

Exposure controls and personal protection

8.1

Control parameters

Components with specific control parameters

CAS: 100-97-0 Methenamine	
OEL (Sweden)	Short-term value: 5 mg/m ³ Long-term value: 3 mg/m ³ S

☉ Regulatory information OEL (Sweden): AFS2011: 18

DNELs

Derived No Effect Level (DNEL)

CAS: 100-97-0 Methenamine		
Dermal	DNEL	8,8 mg/kg (Worker / long-term / systemic effects)
Inhalative	DNEL	31 mg/kg (Worker / long-term / systemic effects)

☉ Recommended monitoring procedures

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

PNECs

Predicted No Effect Concentration (PNEC)

CAS: 100-97-0 Methenamine	
PNEC	100 mg/l (Sewage treatment plant) 0,5 mg/l (Marine water sediment) 2,4 mg/l (Fresh water sediment) 3 mg/l (Fresh water)

Additional information:

The lists that were valid during the compilation were used as basis.

8.2

Exposure controls

☉ Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

☉ General protective and hygiene measures

Follow usual precautions when dealing with chemicals. Keep away from food and drinks. Do not eat, drink or smoke at work, wash hands before breaks and end of work.

Avoid eye and skin contact. Avoid inhaling of steams/aerosols. Change contaminated work wear immediately and clean it before the next wearing. Preventive skin protection.

Protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

 Respiratory protection

Use breathing protection against the effects of fumes/dust/aerosol.

Recommended filter device for short term use: Filter P2

 Hand protection

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Glove material:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Penetration time of glove material:

Value for the permeation: Level = 1 (<10 min)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

 Eye protection:

Safety glasses

use against the effects of fumes / dust

 Personal protection

Protective work clothing



Section 9

Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	Appearance	Tablets
	Color	White
	Odor	Amine-like
	Odor threshold	Not determined
	pH-value (9 g/l) at 20 °C	7.5
	Melting point/Freezing point	Not determined
	Boiling point / Boiling range	Not determined
	Flash point	250° C (CAS 100-97-0)
	Flammability (solid, gas)	Flammable solid
	Decomposition	>263 °C (CAS 100-97-0)

temperature

Auto ignition temperature Product is not self-igniting

Product is not explosive.

Explosive properties

The following applies in general to flammable organic substances/preparations:

Dust explosion possible if in powder or granular form (fine distribution), mixed with air.

Lower explosion limit 20 g/m³ (CAS 100-97-0)

Upper explosion limit Not determined

Oxidizing properties None

Vapor pressure at 20 °C <0,01 hPa (CAS 100-97-0)

Density (20 °C) 1,36 g/cm³

Relative density Not determined

Vapour density Not applicable

Evaporation rate Not applicable

Solubility in water (20 °C) Soluble

Partition coefficient:
n-octanol-water Not applicable

Viscosity Not applicable

Solvent content:

Organic solvents: 0,0%

Solids content: 100%

9.2. Other information:

No further relevant information available.



Section 10 Stability and reactivity

10.1 Reactivity

Dust can combine with air to form an explosive mixture.

10.2 Chemical stability

Stable at ambient temperature (room temperature).

10.3 Possibility of hazardous reactions

In contact with nitrites, nitrates or nitrous acid possible release of nitrosamines (carcinogenic)! with nitric acid, acetic anhydride, iodide

---> Explosive

Reacts with peroxides

Reacts with oxidizing agents

Reacts with acids

10.4 Conditions to avoid

- Avoid overheating.
- 10.5 Incompatible materials
No further relevant information available.
- 10.6 Hazardous decomposition products
Nitrous gases
Formaldehyde
Ammonia (NH₃)
In case of fire: see section 5

Section 11 Toxicological information

- 11.1 Information on toxicological effects
Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values that are relevant for classification (literature)

CAS: 100-97-0 methenamine		
Oral	LD ₅₀	9200 mg/kg (rat) (IUCLID)
Dermal	LD ₅₀	>2000 mg/kg (rat) (OECD 402)

- Primary irritant effect:

Skin: Temporary erythema possible
Eye: Possible irritant effect

Information on components:		
CAS: 100-97-0 methenamine		
Irritation of skin	OECD 404	(rabbit: non irritation)
Irritation of eyes	OECD 405	(rabbit: non irritation)

- Sensitization

May cause an allergic skin reaction.

Information on components:		
CAS: 100-97-0 methenamine		
Sensitization	OECD 406	(guinea pig: positive)
	Patch test (human)	(positive) (UCLID)

The following statements refer to the mixture.

- Carcinogenicity

Based on available data, the classification criteria are not met.

- Mutagenicity

Based on available data, the classification criteria are not met.

- Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT (specific target organ toxicity) – single exposure:
Based on available data, the classification criteria are not met.

STOT (specific target organ toxicity) – repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on components

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

OECD 471, 474, 476: Germ mutagenicity testing

CAS: 100-97-0 methenamine		
OECD 471	(negative)	(Bacterial Reverse Mutation Test – Ames test)
OECD 474	(negative)	(Mammalian Erythrocyte Micronucleus Test) (IUCLID)

Additional toxicological information:

Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Effect on human beings

CAS 100-97-0: Can cause kidney damages.

Section 12 Ecological information

12.1 Toxicity

Aquatic toxicity

CAS 100-97-0 methenamine	
EC50	36 mg/l/48h (daphnia magna) (IUCLID)
EC10	5 mg/l (Fisch)
LC50 (static)	41 mg/l/96h (bluegill) (US-EPA)

Bacterial toxicity

Sulphates toxic >2,5 g/l

CAS 100-97-0 methenamine	
EC10 (static)	>5000 mg/l (Bacterial toxicity) (DIN 38412) (Merck, Vibrio fischeri)

Other information

Toxic for fish:

Magnesium compounds: 100 – 400 mg/l

12.2 Persistence and degradability

CAS-No 100-97-0: not easily biodegradable.

CAS 100-97-0 methenamine	
OECD 302 C	39-47% / 28d (.) (Modified MITI Test (II))

12.3 Bioaccumulation potential

Pow = n-octanol/water partition coefficient.
log Pow < 1 = Does not accumulate in organisms.

 Behaviour in environmental systems

CAS 100-97-0 methenamine

log Pow: -2.84 (.) (experimental) (IUCLID)

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT- and vPvB-assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

12.6 Other adverse effects

Avoid transfer in the environment.

(Mixture) Water hazard class 1 (German Regulation)

(self-assessment acc. VwVwS Annex 4 Nr. 3)

Slightly hazardous to water

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.



Section 13

Disposal considerations

13.1  Waste treatment methods

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to disposers of hazardous waste. Chemicals must be disposed of in compliance with national and regional regulations.

 Waste key number

16 05 06

 Waste name

Laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals.

 European waste catalogue

EWC-waste key is source-related. The decision is up to the enduser.

 Contaminated packaging material

Chemicals must be disposed of in compliance with national and regional regulations.

Recommended cleaning agent: Water, if necessary with cleaning agent.



Section 14 Transport information

No dangerous good according to regulation for transport of dangerous goods.

14.1 UN-Number

1328

14.2 Proper UN-shipping name

HEXAMETHYLENTETRAMIN
HEXAMETHYLENETETRAMINE

14.3 Transport hazard class



4.1

(F1) flammable solids, self-reactive substances and solid desensitized explosives

14.4 Packaging group

III

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for the user

Warning: Flammable solids, self-reactive substances and solid desensitized explosives.

Kemler-number: 40

EMS-number: F-A,S-G

Stowage Category A

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

 Transport/Additional information

ADR/RID

Limited quantities (LQ)	5 kg
Exempted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
Transport category	3
Tunnel restriction code	E

IMDG

Limited quantities (LQ)	5 kg
Exempted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g



Section 15 Regulatory information

15.1 Safety-, health-, ambient- and legislation specific instructions for substance or mixture



This safety data sheet complies with the Regulations (EC) Reach N° 1907/2006.
The mixture is classified according to regulation (EC)1272/2008 Annex I.

National regulations:


Austria:

-  ChemG 1996-amendment 2011
This product is classified hazardous (hazardous preparation) according to the Austrian chemical legislation of 1996-amendment 2011.
-  VbF - Directive about combustible liquids (BGBl 1991/240)
This product is not considered as combustible liquid acc. VbF.

Germany:

-  Classification in water hazard classes according VwVwS /Annex 4
WP 1 (slightly hazardous for water)
-  Regulation (EC) N° 689/2008 concerning the export and import of dangerous chemicals

None of the ingredients is listed.

-  Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer
None of the ingredients is listed.

-  Directive 2012/18/EU (SEVESO III) Named dangerous substances – ANNEX I

None of the ingredients is listed.

- Information about limitation of use
Employment restrictions concerning young persons must be observed.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

Section 16

Other information

The information provided on this SDS is correct to the best of our knowledge and information, but not to be considered as warranty or quality specification nor creates contractual relationship. The information given is designed only as a guidance for safe handling. The categorisation according to regulation CLP (EC)1272/2008 is based on the classification of the single component according to Annex VI of regulation CLP (EC)1272/2008 as well as on manufacturer's data completed by hazardous material database.

Relevant H-phrases

- | | |
|------|--------------------------------------|
| H228 | Flammable solid. |
| H317 | May cause an allergic skin reaction. |

Relevant hazard classification

Not applicable

Edition

Nr. 2 replaces the previous version
Amendments: 2, 8.2, 9.1.11.1 15.1

Written by

WAPOTEC GmbH

Short cut

n. t. not tested
n. a. not applicable
PBT persistent, bio-accumulative, toxic
vPvB high persistent, high bio-accumulative