

**SAFETY DATA SHEET (EG) NR. 453/2010
(EG) NR. 1907/2006 (REACH)**

Printing date: 2019/10/11
Revision: 2019/10/11
Version number: 02

ART.-NO.: 03322000

PRODUCT NAME: AMMONIA STONE

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE
COMPANY/UNDERTAKING**

1.1 Product identifier

Trade name: AMMONIA STONE

ART.-NO.: 03321000

CAS Number:

12125-02-9

EC number:

235-186-4

Index number:

017-014-00-8

Registration number 01-2119487950-27-xxxx

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

Product category PC38 Welding and soldering products, flux products

Technical function

Reactive cleaning/removal agent Other

Application of the substance / the mixture Refer to the appendices on exposure scenarios

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:

P. F. Freund & Cie. GmbH
Hahnerberger Str. 94-96
42349 Wuppertal
Germany
+49 202 409 29 0
info@freund-cie.com

1.4 Emergency telephone number:

France : ORFILA : (33) 1.45.42.59.59

Royaume Uni / Great Britain : UK national poisons emergency number : +44 (0) 870 600 6266 NHS

Direct : 0845 46 47 / Telephone : 0845 606 46 47

NHS non emergency number : call 111

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Irlande / Éire / Ireland : National Poisons Information Centre (NPIC) : (+353) 01 809 2566

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms GHS07

Signal word Warning

Hazard-determining components of labelling:

ammonium chloride

Hazard statements

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P280 Wear eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell

P330 Rinse mouth

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with

local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterisation: Substances

CAS No. Description:

12125-02-9 ammonium chloride

Identification number(s):

EC number: 235-186-4

Index number: 017-014-00-8

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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation Supply fresh air; consult doctor in case of complaints.

After skin contact

Generally the product does not irritate the skin.

Wash clothes before reusing them. Wash carefully shoes before putting on them. Beware of the product that can remain between the skin and clothing, watch, shoes, etc.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

If the victim is conscious: If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

If the victim is unconscious but breathing: Artificial respiration and / or oxygen may be necessary.

4.2 Most important symptoms and effects, both acute and delayed

For symptoms and effects due to contained substances, see section 11.

Vomiting

Headache Nausea

Information for doctor

No specific antidote. Treat the symptoms.

If vomiting occurs, keep head lower than the rest of the body so as to prevent aspiration into the lungs.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture

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Hydrogen chloride (HCl)
Ammoniac (NH₃)

5.3 Advice for firefighters

Protective equipment: Wear fully protective suit.

Additional information

The product itself is not combustible; Define the means of extinction according to a fire in the vicinity. In case of fire and / or explosion, do not breathe fumes. Large quantities of extinguishing water containing dissolved product should be retained. Contaminated extinguishing water should be disposed of in accordance with local official regulations.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Not required.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good hygiene and safety at work. Before the break and after work, wash your hands thoroughly. Remove and wash contaminated clothing before reuse. Provide safety showers and eye fountains in workshops where the mix is handled consistently.

Information about protection against explosions and fires:

Requirements for storage rooms are applicable to the workshops or the mixture is handled. Wash hands after use. Remove and wash contaminated clothing before reuse. Provide safe showers and eye fountains in workshops where the mixture is handled consistently. The workplace must be ventilated and the fumes collected at the source of emission. Wear appropriate safety shoes and gloves. Handle in well-ventilated areas. Prohibiting access to unauthorized persons.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions). Store away from oxidising agents.

Do not store with nitrites / nitrates.

Further information about storage conditions:

Storage time: refer to the label or product analysis certificate where applicable. Keep receptacle tightly sealed.

Keep away from food, beverages and animal feed. This product is hygroscopic.

Protect from humidity and water.

Storage class

Class according to regulation on flammable liquids: Void

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7.3 Specific end use(s) No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7

8.1 Control parameters

· Components with limit values that require monitoring at the workplace:		
CAS: 12125-02-9 ammonium chloride		
WEL	Short-term value: 20 mg/m³ Long-term value: 10 mg/m³	
· DNELs		
CAS: 12125-02-9 ammonium chloride		
Oral	DNEL	55.2 mg/kg (user long term systemic effect)
Dermal	DNEL	55.2 mg/kg (user long term systemic effect)
Inhalative	DNEL	128.9 mg/kg (worker long term systemic effect)
		9.4 mg/m3 (user long term systemic effect)
		43.97 mg/m3 (worker long term systemic effect)
· PNECs		
CAS: 12125-02-9 ammonium chloride		
PNEC	0.25 mg/l (Fresh water)	
	0.43 mg/l (intermittent releases)	
	13.1 mg/l (STP microorganismes station d'eaux usées)	
	0.09 mg/l (Sea water)	
PNEC	0.9 mg/kg (sediment (fresh water))	
	50.7 mg/kg (soil)	

Additional information: The lists that were valid during the creation were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Safety showers and eye wash stations should be strategically located in areas where hazardous products are stored or used. Their location should be close enough for immediate use, but at a distance that would not create additional danger.

Breathing equipment:

Avoid inhalation of dust. Insulating breathing apparatus. It is recommended to set up a smoke suction system closer to issuance. In case of insufficient ventilation, wear suitable respiratory equipment. In case of formation of vapors and aerosols, wear a respirator with appropriate filter.

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As the use of appropriate engineering measures should always take priority over personal protective equipment, ensure adequate ventilation in the workplace, provide local exhaust ventilation, where possible, and effective general air exchange systems, except for closed processes or processes operating outdoors. Workplace concentrations should be kept below the indicated limit values. Avoid inhalation of dust. Type of mask FFP: wear a half-mask filter against dust for use in accordance with NF EN149.

Protection of hands:

Protective gloves.

Use appropriate chemical resistant protective gloves complying with NF EN374. Selection of gloves should be made according to the application and the duration of use at the workplace. Protective gloves must be selected according to the workplace: other chemicals that can be handled, necessary physical protection (cut, puncture, thermal protection), dexterity required.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to a lack of tests, no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Glove material

Recommended characteristics: Waterproof gloves complying with the NF EN374 standard.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Natural rubber, NR Nitrile rubber, NBR Rubber gloves Neoprene gloves

Penetration time of glove material

break time : >480 min.

thickness of the glove : >0.4 mm.

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

Eye protection:

Tightly sealed goggles.

Avoid contact with eyes. Use eye protection designed to prevent splashing. Before handling, it is necessary to wear safety glasses in accordance with the NF EN166 standard. In case of increased risk, use a face shield for face protection. Wearing protective glasses does not constitute protection. Contact lens wearers are advised to use corrective lenses during work or may be exposed to irritating vapors. Provide fountains in the workshops or the product is handled consistently.

Limitation and supervision of exposure into the environment

It is important to test emissions from ventilation systems or manufacturing equipment to ensure they comply with the requirements of legislation on protection of the environment. In some cases it will be necessary to equip the material for manufacturing a gas scrubber or filter or change technically to reduce emissions to acceptable levels.

Risk management measures

Employer is obligated to ensure, that applied personal protective measures and cloths and shoes have protective and usable properties, and ensure their proper washing, preserving, fixing and disinfection. Training on chemical hazards, use and exposure to products must be provided by the employer to prevent any risk. The instructions to be observed must also be brought to the knowledge of employees

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and users (hygiene rules, operating procedures, procedures, prohibition of access to certain areas, use of collection devices at source, obligation to wear PPE, etc).

Risk management measures (RMM) and operating conditions (OC) were calculated using tools. Users should ensure that exposures are under control. In case of deviation, a step of calibration of the results (scaling) must be used. Expert judgment may be required to validate the approach and results. ECETOC TRA.

For exposure control related to environmental protection, refer section 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

· 9.1 Information on basic physical and chemical properties · General Information · Appearance: <div> <div>Form:</div> <div>Solid.</div> </div> <div> <div>Colour:</div> <div>White</div> </div> <div> <div>Odour:</div> <div>Odourless</div> </div> <div> <div>Odour threshold:</div> <div>Not determined.</div> </div>	
· pH-value:	Not applicable.
· Change in condition <div> <div>Melting point/freezing point:</div> <div>338 °C</div> </div> <div> <div>Initial boiling point and boiling range:</div> <div>undetermined</div> </div>	
· Flash point:	Not applicable
· Flammability (solid, gaseous)	Product is not flammable.
· Decomposition temperature:	Not determined.
· Self igniting:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits: <div> <div>Lower:</div> <div>Not determined.</div> </div> <div> <div>Upper:</div> <div>Not determined.</div> </div>	
· Vapour pressure at 30 °C:	<1.3 hPa
· Density: · Relative density · Vapour density · Evaporation rate	Not determined Not determined. Not applicable. Not applicable.
· Solubility in / Miscibility with Water at 20 °C:	372 g/l
· Partition coefficient: n-octanol/water:	-4.39794 Not determined.
· Viscosity: dynamic: kinematic:	Not applicable. Not applicable.

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Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known

10.4 Conditions to avoid Avoid humidity.

10.5 Incompatible materials:

Avoid strong oxidizers Avoid strong bases.

Reactions with nitrites / nitrates.

10.6 Hazardous decomposition products:

Hydrogen chloride (HCl)

Ammonia

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Harmful if swallowed.

· LD/LC50 values that are relevant for classification:			
CAS: 12125-02-9 ammonium chloride			
Oral	LD50	>1,400 mg/kg (rat)	
	LDL0	500 mg/kg (mouse)	
Dermal	LD50	>2,000 mg/kg (rat)	

Primary irritant effect:

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

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

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

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxizität

Aquatic toxicity: No further relevant information available.

Type of test	Effective concentration	Method	Assessment
CAS: 12125-02-9 ammonium chloride			
CL50 / 96h	42.91 mg/l (fish) (oncorhynchus mykiss) 46.27mg/l for prosopium williamsoni		
CE50 (static)	1,300 mg/l (algae) (5 days - chorella vulgaris) 18 days - 2700mg/l - chlorella vulgaris		
CE50 / 48h (static)	136.6 mg/l (daphnia) (daphnia magna) 98.5mg/l for cerio daphnia dubia		
CL0	139 mg/l (daphnia) (96h)		

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

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

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation



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

European waste catalogue

Must apply in all cases all local, regional and national laws and European directives. The end user must determine the specific code of waste for each industry using the appropriate European Code European Waste Catalogue. It is recommended that all details are specified by the responsible waste.

HP4	Irritant - skin irritation and eye damage
HP6	Acute Toxicity

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Uncleaned packagings:

Recommendation:

Dispose of packaging according to regulations on the disposal of packagings.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

· 14.1 UN-Number · ADR, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

SECTION 15: REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU**

Named dangerous substances - ANNEX I Substance is not listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 65

National regulations

Classification according to VbF: Void

Water hazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.

Customs Combined Nomenclature : 2827.10.000

15.2 Chemical safety assessment:

The information on the exposure scenarios of the substances was compiled in the different parts of the SDS of the mixture on the basis of the Lead Component IDentification (LCID) or "top-bottom approach process".

A Chemical Safety Assessment has not been carried out.

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SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

We can not anticipate all conditions under which this information and our products or the combination of these with others will be used. We disclaim all responsibility for the safety and suitability of our products alone or in combination with others. It is up to the buyers to conduct their own tests to determine the safety and adaptation of each product used alone or with other products for their own use.

Unless prior written our products are sold without warranty and purchasers assume any liability for loss or damages of any kind suffered by themselves or third parties, either from handling or use of our products they are alone or with others. In case of finding of a difference when using the product we ask you to contact our technical service.

The information contained in this Material Safety Data Sheet is based on the knowledge of this product as well as national and European laws knowing that the working conditions of its users are not known and thus escape our control. The product should not be used for purposes other than those for which it was designed and prepared, it can be used without prior written knowledge of instructions for their use. It is up to the user to take all measures necessary to comply with these requirements by law. Training advice: Training awareness of the dangers of chemicals, integration labeling, safety data sheets, personal protection and good hygienic measures. response training for chemical incidents. First aid for chemical exposure, including the use of safety eye wash and showers. The use of personal protective equipment, including selection, compatibility, maintenance, standards and fit. method of classification for mixtures: Calculation method.

Department issuing SDS: Technical service

Abbreviations and acronyms:

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

*** Data compared to the previous version altered.**

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