

Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Patina Grün / Blau (activator for metal oxidation)

Status 08.2018

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

1.1 Product identifier

Trade name: Patina Grün / Blau

Other designations: -

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

Description/Use Coating mortar.

1.3. details of the supplier providing the safety data sheet

Company name **edelundstein GmbH**
Address **Einsteinstraße 12**
Location and country **33104 Paderborn**
GERMANY
Phone +49 5254 9330731
fax +49 5254 9330733

E-mail of the competent person, **info@edel-und-stein.com**
who is responsible for the safety data sheet.

1.4 Emergency number

For urgent information please contact; Technical Information: Dr. Felix Ferlemann +49 170 7362924

Section 2: Possible risks

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

Eye irritation. 2 H319 Causes severe eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R22: Harmful if swallowed.

Xi; Irritant

R36: Irritates the eyes.

Classification system:

The classification corresponds to the current EC lists, but is supplemented by information from technical literature and through company information.

2.2 Identification elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP Regulation.

Danger pictograms



GHS07

Signal word: Attention

Danger warnings:

H302 Harmful if swallowed.

H319 Causes severe eye irritation.

Safety Instructions:

P305+P351+P338 IN CONTACT WITH EYES: Gently rinse with water for a few minutes.

Remove existing contact lenses if possible. Continue rinsing

2.3 Other risks

Chemicals always pose special dangers. They are therefore only of correspondingly to be handled with the necessary care by trained personnel.

Results of the PBT and vPvB assessment:

- PBT: Not applicable.
- vPvB: Not applicable.

Section 3: Composition/information on ingredients

3.2. mixtures

Description: Alloy consisting of the substances listed below.

Ingredients : CAS No.	EINECS	Chemical name	from % of	up to %	Danger symbols	R-phrases	index no.
12125-02-9	235-186-4	Ammonium chloride	25	50	Xn, Xi	22, 36	017-014-00-8

Labelling (CLP): CAS No	EINECS	Chemical name	Danger pictograms	Signal word	Danger warnings
12125-02-9	235-186-4	Ammonium chloride	GHS07	Attention	H302, H319

Additional notes:

The wording of the hazard statements listed can be found in section 16.

Section 4: First aid measures

4.1 Description of first aid measures

After inhalation: Provide fresh air.

After inhalation of vapours from thermal decomposition: Supply fresh air or oxygen; seek medical attention.

After eye contact: Remove contact lenses, keep eyelids open and rinse thoroughly with clean, fresh water and seek medical advice.

After skin contact: Wash off with water.

After swallowing: Rinse out mouth and drink water. Seek medical treatment!

4.2 Main acute and delayed symptoms and effects

Shortness of breath
Diarrhoea
Vomiting
Cough
Irritations
Nausea
Headache

4.3. references to emergency medical assistance or special treatment

No other relevant information available.

Section 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Adapt fire extinguishing measures to the environment. CO₂, extinguishing powder, water spray, foam

Extinguishing media unsuitable for safety reasons:

There are no extinguishing agent restrictions for this substance/mixture.

5.2 Special risks arising from the substance or mixture

Hazardous vapors may be generated in case of an ambient fire.

In case of fire, may be released:

Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

Ammonia fumes (NH₃)

Carbon monoxide and carbon dioxide

5.3 Instructions for fire fighting

Do not inhale explosion and combustion gases.

Avoid skin contact by keeping a safe distance or wearing suitable protective clothing

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

Do not inhale dust.

6.2 Environmental protection measures

Do not allow to enter drains or watercourses. If rivers, lakes or sewers become polluted, inform the relevant authorities in accordance with local laws.

6.3 Methods and material for retention and cleaning up

Pick up mechanically.

Avoid dust formation

Dispose of the collected material in accordance with the regulations.

6.4 Reference to other sections

See section 7 for information on safe handling.

See section 8 for information on personal protective equipment.

See section 13 for information on disposal

Section 7: Storage and Handling

7.1. protective measures for safe handling

Notes on safe handling:

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Ensure cleanliness and dryness at the workplace.
 Do not leave the vessels open.
 For filling and decanting, use as tightly sealed systems with suction.
 Avoid spills.
 Fill only into marked containers.
 Avoid the formation of dust when handling openly.

Notes on fire and explosion protection:
 No special measures required.

7.2. conditions for safe storage, taking into account incompatibilities
 Requirements to be met by storerooms and containers: Store only in original containers.
 Information on storage together: Store separately from food.
 Further information on storage conditions: Store in a dry place. Keep container tightly closed.
 Recommended storage temperature: 15 - 25 °C

7.3 Specific end-uses
 No other relevant information available.

Section 8: Exposure controls/personal protection

8.1 Parameters to be monitored
 Components with limit values that require monitoring at the workplace: Not applicable

Workers
 long-term exposure - systemic effects:
 Dermal DNEL 128,9 mg/kg (worker)
 Inhaled DNEL 43,97 mg/m³ (worker)

Consumer
 long-term exposure - systemic effects:
 Oral DNEL 55,2 mg/kg (consumer)
 Dermal DNEL 55,2 mg/kg (consumer)
 Inhaled DNEL 9,4 mg/m³ (consumer)

PNEC values
 PNEC 50,7 mg/kg (soil)
 13,1 mg/l (sewage treatment plants)
 0,025 mg/l (sea water)
 0,09 mg/kg (sea water)
 0,9 mg/kg (fresh water sediment)
 0,25 mg/l (fresh water)
 0.43 mg/l (sporadic release)

Additional notes:
 The lists valid at the time of preparation were used as a basis.

8.2 Exposure controls and monitoring
 Respiratory protection: In case of dust formation. Recommended filter type: Filter P2 (identification colour: white)



Hand protection: protective gloves



The glove material must be impermeable and resistant to the product/ substance/ preparation.
Selection of the glove material considering breakthrough times, permeation rates and degradation.

Glove material

Nitrile rubber, thickness >0.3 mm

The selection of a suitable glove is not only dependent on the material, but also on other quality characteristics and varies from manufacturer to manufacturer.

Penetration time of the glove material

Value for permeation: Level ≥ 6

The exact breakthrough time must be obtained from the manufacturer of the protective gloves and observed.

Gloves made of the following materials are suitable as splash protection:

Nitrile rubber/nitrile latex, thickness: ≥ 0.11 mm

Value for permeation: Level ≥ 6

Eye protection: Tightly fitting safety goggles

Protection and hygiene measures: Keep away from food, drink and animal feed.

Wash hands before breaks and at the end of work. Avoid contact with eyes.

Section 9: Physical and chemical properties

9.1. information on basic physical and chemical characteristics

Shape: Liquid

Colour: white-transparent

Odour: odourless

pH value: Not determined.

Change of state

Melting point/Melting range: Not determined.

Boiling point/Boiling range: 100 °C

Flash point: Not determined.

Flammability (solid, gaseous): Not determined.

ignition temperature: > 400 °C

Decomposition temperature: Not applicable.

Self-ignition: The product is not self-igniting.

Explosion limits: Not determined.

Bottom: Not determined.

Upstairs: Not determined.

Vapour pressure: 23 hPa

Density at 20 °C: approx. 1,07596 g/cm³

Bulk density: Not determined.

Evaporation rate: Not applicable.

Solubility in / Miscibility with water: fully miscible.

Partition coefficient (n-octanol/water): Not applicable.

9.2 Other information

No other relevant information available.

Section 10: Stability and reactivity

10.1 Reactivity

No other relevant information available.

10.2 Chemical stability

No decomposition if used as intended.

10.3 Possibility of dangerous reactions

Strong to explosive reactions with: Alkali hydroxides, acids

Risk of ignition or generation of hazardous gases or vapours with halogen-halogen compounds, Lye.

Explosion hazard with nitrates, chlorates, nitrites, chlorine, silver salt, strong oxidants.

10.4 Conditions to be avoided

Stable if the recommended storage and handling instructions are applied (see chapter 7).

At high temperatures, dangerous decomposition products may be formed.

10.5 Incompatible materials

No other relevant information available.

10.6. hazardous decomposition products

No dangerous decomposition products known.

Section 11: Toxicological information

11.1 Information on toxicological effects

LD/LC50 values relevant for classification:

Oral LD50 1410 mg/kg (rat)

Specific symptoms in animal experiments:

Test for skin irritation (rabbit): no irritation.

Test for eye irritation (rabbit): Irritation.

Primary irritant effect:

on the skin: Prolonged or repeated contact may cause skin irritation.

on the eye: Strong irritant effect with danger of serious eye damage.

After inhalation: irritation of mucous membranes, coughing, shortness of breath. Pulmonary oedema

Sensitization: No sensitizing effect known.

The substance or mixture is not classified as toxic to the target organ, single exposure.

The substance or mixture is not classified as toxic to the target organ, repeated exposure.

Systemic effect: CNS disorders, arousal, cramps

Additional toxicological information: After swallowing, irritation of mouth, throat, esophagus, gastrointestinal tract. The product should be handled with the necessary care when handling chemicals.

Section 12: Environmental information

12.1 Toxicity

Aquatic toxicity:

Fish toxicity

LC50 42.9 mg/l/96 h (Onchorhynchus mykiss)

Daphnia toxicity

EC50 98.5 mg/l/48 h (Ceriodaphnia dubia)

136,6 mg/l/48 h (Daphnia magna (large water flea))

Algae toxicity

IC50 1300 mg/l (Chlorella vulgaris) (5 d)

12.2 Persistence and degradability

Inorganic product, cannot be eliminated from the water by biological cleaning processes.

12.3 Bioaccumulation potential

Due to the n-octanol/water partition coefficient, accumulation in organisms is not too expect (log POW ≤4).

12.4 Mobility in soil

No other relevant information available.

Ecotoxic effects: Do not allow product to reach ground water, water bodies or sewage system.

12.5 Results of the PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

No other relevant information available.

Section 13: Disposal considerations

13.1 Waste treatment procedures

Recommendation:

The product and its container must be disposed of as hazardous waste.

Disposal is regulated differently in different countries and communities, therefore the type of disposal should be obtained from the local authorities (town hall).

The assignment of a waste code number according to the European Waste Catalogue (AVV) is to be carried out in consultation with to the regional disposal company.

Uncleaned packaging:

Recommendation: Disposal according to official regulations

Section 14: Transport information

14.1 UN number

ADR, IMDG, IATA: Not applicable.

14.2 UN proper shipping name

Not applicable.

IMDG, IATA: Not applicable.

14.3. transport hazard classes

Not applicable.

IMDG, IATA: Not applicable.

14.4. packing group

ADR, IMDG, IATA: Not applicable.

14.5 Environmental hazards

Marine pollutant: No.

14.6 Special precautions for the user

User Caution: Various dangerous substances and objects

14.7. carriage in bulk in accordance with Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

Transport/other information: Not subject to transport regulations.

Section 15: Legislation

15.1. safety, health and environmental protection requirements/specific legislation for the substance or mixture

National regulations:

Information on employment restrictions: Observe employment restrictions for young people according to § 22 JArbSchG.

Storage class according to TRGS 510: 10-13 other flammable / non-flammable solids / liquids
Water hazard class: WGK 1 (list classification) : slightly hazardous to water.
VwVws: identification no. 213

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

Section 16: Other information

16.1 Wording of the R and H phrases

Relevant records

(only for explanation of H and R phrases mentioned in the safety data sheet, e.g. in chapter 3)

H phrases:

H302 Harmful if swallowed.

H319 Causes severe eye irritation.

R phrases:

R22: Harmful if swallowed.

R36: Irritates the eyes.

16.2 Further information

This Material Safety Data Sheet has been prepared to the best of our knowledge, information and belief regarding this product on the date indicated in the footer of this document. The information is intended as a guide to the safe and responsible use, storage, transportation and processing of the product and does not constitute a quality specification. The information relates only to the specific materials indicated and does not apply to the use of these materials in combination with other materials or the use of these materials in processes unless specifically stated in the text. No rights can be derived from this information. Nor does it constitute the basis for any legal agreement.