

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

Trade name: InnoMetal Green Patina

Other names: -

MSDS name: EN_InnoMetal_MSDS_Green Patina

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

1.2.1. Application of the substance / the mixture

Paint

1.2.2. Applications advised against

No further relevant information available.

1.3. Details of the supplier of the safety data sheet

InnoMetal GmbH

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info@innometal.de

1.4. Emergency telephone number

Monday - Friday, 9:00 am - 4:00 pm

+49 (0)221 958 2011

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

Xn; Harmful

R22: Harmful if swallowed.

Xi; Irritant

R36: Irritating to eyes

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms:



GHS07

Signal word: Warning

Hazard statements:

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Precautionary statements:

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

2.3. Other hazards

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description: Alloy of substances listed below with non-hazardous additions.

Components:

CAS	EINECS	Chemical name	from %	till %	Hazard pictograms	R phrases	Index Number
12125-02-9	235-186-4	ammonium chloride	50	75	Xn, Xi	22, 36	017-014-00-8

Labelling (CLP):

CAS	EINECS	Chemical name	Hazard pictograms	Signal word	Hazard statements
12125-02-9	235-186-4	ammonium chloride	GHS07	Warning	H302, H319

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Symptoms may be delayed.

After inhalation: After inhalation of dusts: Supply fresh air. After inhalation of vapours (thermal decomposition): Supply fresh air or oxygen; call for doctor.

After skin contact: Rinse with water.

After eye contact: Rinse opened eye for 10 minutes under running water. Then consult a doctor.

After swallowing: Rinse out mouth and then drink water.

Seek medical treatment.

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

Breathing difficulty

Coughing

Irritations

Headache

Nausea

Vomiting

Diarrhoea

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:

Use fire extinguishing methods suitable to surrounding conditions.

CO₂, powder, foam or water spray.

For safety reasons unsuitable extinguishing agents:

For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Hydrogen chloride (HCl)

Vapour of ammonia. (NH₃)

Carbon monoxide and carbon dioxide

5.3. Advice for firefighters

Do not inhale explosion gases or combustion gases.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with the eyes and skin.

Do not breathe dust.

6.2. Environmental precautions

Do not allow to enter sewers/surface or ground water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Pick up mechanically.

Avoid formation of dust

Dispose of the material collected according to regulations.

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

Ensure good ventilation/exhaustion at the workplace.
Information about fire and explosion protection:
No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Store only in the original receptacle!
Information about storage in one common storage facility:
Store away from foodstuffs!
Further information about storage conditions:
Store in dry conditions!
Keep container tightly sealed.
Recommended storage temperature: 15 - 25 °C

7.3. Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:	
12125-02-9 ammonium chloride	
WEL (GB)	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³

DNELs

Worker

Long-term exposure - systemic effects:
Dermal DNEL 128.9 mg/kg (worker)
Inhalative DNEL 43.97 mg/m³ (worker)

Consumer

Long-term exposure - systemic effects:
Oral DNEL 55.2 mg/kg (Customer)
Dermal DNEL 55.2 mg/kg (Customer)
Inhalative DNEL 9.4 mg/m³ (Customer)

PNECs

PNEC 50.7 mg/kg (Soil)
13.1 mg/l (Sewage treatment plant)
0.025 mg/l (Marine water)
0.09 mg/kg (Marine water)
0.9 mg/kg (Fresh Water sediment)
0.25 mg/l (Fresh Water)
0.43 mg/l (intermittent releases)

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

8.2. Exposure controls

Respiratory protection: Required when dusts are generated. Recommended filter type: Filter P2 (colour code: white).

Protection of hands: The glove material has to be impermeable and resistant to the product/the substance/the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves: Nitrile, thickness >0.3 mm.

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.

Penetration time of glove material: Value for the permeation: Level ≥ 6 .
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, thickness: ≥ 0.11 mm

Value for the permeation: Level ≥ 6



Protective gloves

Eye protection: Tightly sealed goggles.

Body protection: Protective work clothing.

General protective and hygienic measures: Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid

Colour: White/Clear

Odour: Odourless

PH-value: Not applicable

Change in condition

Melting point/Melting range: Not applicable.

Boiling point/Boiling range: 100 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Not determined

Ignition temperature: Not determined

Decomposition temperature: Not applicable

Self-igniting: Product is not self-igniting.

Danger of explosion: Dust can combine with air to form an explosive mixture.

Explosion limits:

Lower: 1.0 vol. %

Upper: Not determined

Vapour density: 23 hPa

Density at 20 °C: ca. 1.07596 g/cm³

Bulk density: Not determined.

Evaporation rate: Not applicable

Solubility in/Miscibility with water: Completely soluble.

Partition coefficient (n-Octanol/water): Not applicable

Viscosity: Not applicable.

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:

To avoid thermal decomposition do not overheat.

No decomposition if used and stored according to specifications

10.3. Possibility of hazardous reactions

Contact with the below mentioned substances may cause violent reactions or an explosion.
alkali hydroxides, acids

Risk of ignition or formation of inflammable gases or vapours with:

halogen-halogen compounds, alkaline

Danger of explosion with:

Nitrates, chlorates, nitrites, chlorine, Silver salt, Strong oxidizing agents.

10.4. Conditions to avoid

Strong heating

10.5. Incompatible materials

Oxidizing agent, alkali hydroxides, chlorine, chlorates, nitrate and nitrites.

10.6. Hazardous decomposition products

In case of fire: see item 5.

Additional information: Hygroscopic

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 biological assay:

Skin irritation test (rabbit): no irritations.

Eye irritation test (rabbit): Irritations.

Primary irritant effect:

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

on the eye: Strong irritant with the danger of severe eye injury.

after inhalation: Irritations in the respiratory tract, coughing, dyspnoea.

Pulmonary oedema

Sensitization: No sensitizing effects known.

CMR effects:

Germ cell mutagenicity:

No known significant effects or critical hazards.

Carcinogenicity:

No known significant effects or critical hazards.

Reproductive toxicity:

No known significant effects or critical hazards.

Aspiration hazard:

No aspiration toxicity classification.

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Additional toxicological information:

After swallowing irritations in the mouth, throat, oesophagus and gastrointestinal tract.

Systemic effects: CNS-disorders, Irritation, Spasms

Further information: The product should be handled with the care usual when dealing with chemicals.

SECTION 12: Ecological 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)

Algal toxicity: IC50 1300 mg/l (Chlorella vulgaris) (5 d)

12.2. Persistence and degradability

Anorganic product is not eliminable from water by means of biological cleaning processes.

12.3. Bio-accumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected (log POW ≤ 4).

12.4. Mobility in soil

No further relevant information available.

Remark: Do not allow product to reach ground water, water course or sewage system.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendation: This material and its container must be disposed of as hazardous waste.
The disposal is regionally differently regulated; therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging:

Recommendation: Disposal according to official regulations.

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: Void.

Class: Void.

Label: Void.

IMDG, IATA: Void.

Class: Void.

14.4. Packing group

ADR, IMDG, IATA: Void.

14.5. Environmental hazards

Marine pollutant: No.

14.6. Special precautions for user

Void.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

Not subject to transport regulations.

SECTION 15: Regulatory information

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

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.

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

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

16.1. Wording of R und H phrases

Relevant phrases

(serves as the explanation for only the hazard and risk phrases noted in the MSDS, e.g. in chapter 3)

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

R22: Harmful if swallowed.

R36: Irritating to eyes

16.2. Further information

The information provided in this material safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warrant or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.