Safety data sheet: Potasium Densifier PD 105

According to 1907/2006/EC, Article 31

Interior & Exterior

High Quality Binder for silicate bonded coating systems

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

Product details:
Trade name: *Potasium Densifier PD 105*
Registration number Silicic acid, potassium salt: 01-2119456888-17-0002
Application of the substance / the preparation binder for paints and plasters
Manufacturer/Supplier:
isi GmbH
Ilgner – Schleif – Innovationen GmbH
D-51598 Friesenhagen - Steeg
Telefon 0049/2294/993818 - 0
Telefax 0049/2294/993818-30
Further information obtainable from: mail@ilgner-schleif-innovationen.com
Information in case of emergency: Tel.: 0049/30/19240

2 Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 Void
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
not applicable
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
Label elements
Labelling according to Regulation (EC) No 1272/2008
Hazard pictograms Void
Signal word Void
Hazard-determining components of labelling: Void
Hazard statements Void
Labelling according to EU guidelines:
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
The classification is based on available toxicological data.
Observe the general safety regulations when handling chemicals

3 Composition/information on ingredients

Chemical characterization
Description: Mixture of substances listed below with nonhazardous additions.
Dangerous components:

CAS: 1312-76-1 EINECS: 215-199-1	Aqueous solution of potassium silicate, molratio > 3,2	< 40%

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

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4 First aid measures

General information **No special measures required.**
After skin contact **Immediately rinse with water.**
After eye contact **Rinse opened eye for several minutes under running water.**
After swallowing
Rinse out mouth and then drink plenty of water.
Call a doctor immediately.

5 Firefighting measures

Suitable extinguishing agents
Product itself is not combustible; define extinguishing measures according to neighbouring conditions.
Protective equipment: No special measures required.

6 Accidental release measures

Person-related safety precautions:
Particular danger of slipping on leaked/spilled product.
Measures for environmental protection:
Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Additional information:
No dangerous substances are released.
See Section 8 for information on personal protection equipment.

7 Handling and storage

Handling
Information for safe handling: Avoid contact with eyes, skin and clothing.
Information about fire - and explosion protection: No special measures required.
Storage
Requirements to be met by storerooms and receptacles:
Do not use light alloy receptacles.
Unsuitable material for receptacle: aluminium.
Unsuitable material for receptacle: glass or ceramic.
Unsuitable material for receptacle: zinc.
Suitable material for receptacles and pipes: steel or stainless steel.
Information about storage in one common storage facility:
Do not store together with acids.
Further information about storage conditions: Protect from frost.

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8 Exposure controls/personal protection

Additional information about design of technical facilities:
No further data; see item 7.
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
DNELs
Silicic acid, potassium salt:
DNEL dermal - workers, long-term = 1,49 mg/kg bw/d
DNEL inhalation - workers, long-term = 5,61 mg/kg bw/d
DNEL dermal - genral population, long-term = 0,74 mg/kg bw/d
DNEL inhalation - general population, long-term = 1,38 mg/kg bw/d
DNEL oral - general population, long-term = 0,74 mg/kg bw/d
PNECs
Silicis acaid, potassium salt:
PNEC aqua - freshwater = 7,5 mg/l
Additional information: Exposure scenario: see Annex
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures are to be adhered to when handling chemicals.
Respiratory protection: Not required.
Protection of hands: Alkaline resistant gloves
Material of gloves
Natural Latex with small amount of polychloroprene Latex. (Lapren, Company KCL)
Penetration time of glove material
Value for the permeation: Level ³ 6
Indications are besed on information by the producer of the gloves resp. literature or derived from similar substances by analogy.
Eye protection: Safety glasses

9 Physical and chemical properties

General Information	
Appearance:	
Form:	**Fluid**
Colour:	**Colourless**
Odour:	**Odourless**
Change in condition Boiling point/Boiling range:	**> 100°C**
Flash point:	**Not applicable**
Self-igniting:	**Product is not selfigniting.**
Danger of explosion:	**Product does not present an explosion hazard.**
Density at 20°C:	**ca. 1.25 g/cm3**

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Solubility in / Miscibility with Water:		**Fully miscible**
pH-value (100 g/l) at 20°C:		**ca. 10.8**
Viscosity:	**dynamic at 20°C:**	**ca. 28 mPas**
Solvent content:	**Organic solvents:**	**0.0 %**

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
Materials to be avoided:
Dangerous reactions
Strong exothermic reaction with acids
Reacts with light alloys to form hydrogen
Dangerous decomposition products: No dangerous decomposition products known

11 Toxicological information

Acute toxicity:
LD/LC50 values relevant for classification:
1312-76-1 Aqueous solution of potassium silicate, molratio > 3,2

Oral	LD 50	> 2000 mg/kg (rat)

Primary irritant effect:
on the skin: slightly irritant
on the eye: slightly irritant
Sensitization: No sensitizing effects known.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

Information about elimination (persistence and degradability):
Other information:
Readily eliminable from water.
Inorganic product; biotic degradation not applicable.
Ecotoxical effects:
Acquatic toxicity:
1312-76-1 Aqueous solution of potassium silicate, molratio > 3,2

EC 50 / 24h	> 146 mg/l (Daphnia magna)
LC 50 / 48h	> 146 mg/l (golden orfe)
Remark:	**No toxicity after neutralization.**

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Behaviour in sewage processing plants:
The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.
Additional ecological information:
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Recommendation
Can be disposed off with rumble after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
European waste catalogue
Waste catalogue numbers are to be defined according to EWC-Directive, specially for application sectors.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

Land transport ADR/RID (cross-border)	
ADR/RID class:	**---**
Maritime transport IMDG:	**---**
IMDG Class:	**---**
Marine pollutant:	**No**
Air transport ICAO-TI and IATA-DGR:	**---**
ICAO/IATA Class:	**---**
UN "Model Regulation":	**---**

15 Regulatory information

Chemical safety assessment A Chemical Safety Assessment has been carried out.
National regulations
Water hazard class: water hazard class 1: slightly hazardous for water

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16 Other information

The product is designed exclusively for professional/industrial application (see productinformation). This information is based on our level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
Department issuing MSDS: Laboratory
Contact: Thomas Ilgner / Anis Saad

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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