

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 14.02.2008

Revision: 14.02.2008

1 Identification of substance:

- **Product details:**
- **Trade name:** **Sulphamic Acid**
- **Application of the substance / the preparation** Cleaning agent/ Cleaner
- **Supplier/Manufacturer:**
Penpet Petrochemical Trading GmbH
Merkur-Park
Sieker Landstrasse 126
22143 Hamburg
Germany
Tel: +49 40 675 799 0
Fax: +49 40 675 799 99 / 88
- **Email competent person:** angelika.torges@kft.de
- **Information department:** See supplier/manufacturer
- **Emergency information:** National Poisons Information Centre Tel.: +44 (0)870 6006266

2 Hazards identification

- **Hazard description:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment:**
R 36/38 Irritating to eyes and skin.
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded using company data and specialized literature.
- **Additional information:**
Aqueous solutions of this substances react acidly and may have a corrosive effect due to the extreme pH-value.

3 Composition/information on ingredients

- **Chemical characterization:**
- **CAS No. Description:**
5329-14-6 sulphamidic acid
- **Identification number(s):**
- **EINECS Number:** 2262188
- **EU Number:** 016-026-00-0

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness, place patients on their side in a stable position for transportation.
- **After skin contact:**
At first remove dust mechanically.
Clean effected skin thoroughly with water and a mild cleansing agent. No residues shall remain on the skin.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult a doctor or better an eye specialist.

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- **After swallowing:**
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting.
 Call for a doctor immediately.
- **Information for doctor:**
- **Danger:**
 In case of swallowing risk of perforation.
 Risk of glottis oedema.
 Risk of pulmonary oedema.
- **Treatment:**
 Symptomatic treatment
 In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol.

5 Fire fighting measures

- **Suitable extinguishing agents:**
 The product is not combustible and does not support the combustion.
 Use fire fighting measures that suit the environment.
 Fire-extinguishing powder
 Sand
- **For safety reasons unsuitable extinguishing agents:**
 Water
 If for reasons of necessity or out of ignorance water was used as extinguishing material pay attention to the water hazardous material which has reach the sewage system or ground water.
 Shifting of pH-value has toxic effects on aquatic organisms.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
 Dangerous decomposition product see chapter 10: stability and reactivity
- **Protective equipment:**
 Wear self-contained respiratory protective device.
 Wear fully protective suit.
 Do not inhale explosion gases or combustion gases.
- **Additional information:**
 Pay special attention to corrosive effects if water is used as extinguishing agent.
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
 Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**



Wear protective equipment. Keep unprotected persons away.

- Use respiratory protective device against the effects of fumes/dust/aerosol.
 Ensure adequate ventilation
 Keep away from water and humidity.
- **Measures for environmental protection:**
 Do not allow product to reach sewage system or any water course.
 Do not allow to penetrate the ground/soil.
- **Measures for cleaning/collecting:**
 Pick up mechanically.
 Avoid dust formation absolutely. If necessary pick up with a tested and approved industrial vacuum cleaner.
 Send for recovery or disposal in suitable receptacles.

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Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of dust.
 Any deposit of dust which cannot be avoided must be regularly removed.
 Avoid contact with eyes and skin.
 Avoid inhalation of dust.
 When diluting, always stir the product into standing water, do not add water to product.

- **Information about protection against explosions and fires:**

Upon contact with light metals hydrogen gas may be formed. Risk of explosion!

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.
 Provide acid-resistant floor.
 Prevent any seepage into the ground.
 Unsuitable material:

- **Information about storage in one common storage facility:**

Store away from foodstuffs.
 Store away from feed.
 Store away from oxidizing agents.
 Do not store together with alkalies (caustic solutions).

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Storage class** 8 Corrosive products (VCI)

8 Exposure controls and personal protection

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

- **Components with limit values that require monitoring at the workplace:** Not required.

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**

Observe general threshold limit for dust.

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

- **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 and skin.
 Vacuum clean contaminated clothing. Do not blow or brush off contamination.
 Do not eat or drink while working.
 Provide eye bath.

- **Breathing equipment:**

Not necessary if room is well-ventilated.
 Use suitable respiratory protective device in case of insufficient ventilation.
 Short term filter device:

Filter P2.

B2 - P2

- **Protection of hands:**

Chemical resistant gloves
 Check protective gloves prior to each use for their proper condition.
 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

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

· **Material of gloves:**

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.

For undissolved solid substances following materials may be suitable:

Butyl rubber, BR

Nitrile rubber, NBR

Polychloroprene rubber (CR)

Fluorocarbon rubber (FKM)

· **Penetration time of glove material:**

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

· **Eye protection:** Tightly sealed goggles.

· **Body protection:**

Protective work clothing.

According to hazard:

Boots

Apron

9 Physical and chemical properties:

· **General Information**

Form:	Powder Crystalline
Colour:	White
Odour:	Odourless

· **Change in condition:**

Melting point/Melting range:	205°C Decomposition
Boiling point/Boiling range:	undetermined

· **Flash point:** not applicable

· **Flammability (solid, gaseous)** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** > 200°C

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 25°C:** 2.126 g/cm³

· **Bulk density at 20°C:** ~ 600-1300 kg/m³

· **Solubility in / Miscibility with**

Water at 20°C:	213 g/l
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· **pH-value (10 g/l) at 25°C:** 1.2

· **Segregation coefficient (n-octanol/water):** -4.34 log POW
calculated

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

Decomposes without melting.

· **Materials to be avoided:**

Strong oxidants

sulfides

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Bases

Base metals

Nitrites

Cyanides

- **Dangerous reactions:** When diluting, always add acid to water, never vice versa

- **Dangerous products of decomposition:**

In the case of fire or at high temperatures the formation of the following decomposition products is possible.

Nitrogen oxides (NOx)

Sulphur oxides (SOx)

Ammonia

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral LD₅₀ > 2000 mg/kg (rat)

OECD Guide-line 401

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:**

Irritating effect.

Strong irritating effects with the danger of severe eye injury will be likely if the eyes are not rinsed immediately.

- **Sensitization:** No sensitizing effects known.

- **Other information (about experimental toxicology):**

Repeated Dose Toxicity:

NOAEL: 10000 ppm

Method: OECD guide-line 408

Period: 90 days

Ames-test: no mutagenic effects

- **Additional toxicological information:**

After swallowing: irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

The toxicity data mentioned in this chapter are literature data. The product itself has not been tested.

12 Ecological information

- **Information about elimination (persistence and degradability):**

- **Other information:** Inorganic substance, not biodegradable.

- **Behaviour in environmental systems:**

- **Mobility and bioaccumulation potential:** Log POW < 0 - not lipophilic, no bioaccumulation.

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

EC₁₀ ≥ 1000 mg/l (pseudomonas putida)
16hLC₅₀/96h (static) 70.3 mg/l (Pimephales promelas)

- **Remark:**

(literature data)

Harmful effect by pH-value shift.

- **General notes:**

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

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

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

Danger to drinking water is possible if large quantities leak into the ground or into water course.

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13 Disposal considerations

- **Product:**
- **Recommendation:**



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

Must be specially treated adhering to official regulations.

- **European waste catalogue:**

07 00 00 Wastes from organic chemical processes

07 01 00 waste from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals

07 01 99 wastes not otherwise specified

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 8 (C2) Corrosive substances.

- **Danger code (Kemler):** 80

- **UN-Number:** 2967

- **Packaging group:** III

- **Label:** 8

- **Description of goods:** Sulphamic acid

- **Remarks:** Limited Quantity: 6 kg per inner packaging, 30 kg gross per packaging unit

- **Maritime transport IMDG:**



- **IMDG Class:** 8

- **UN Number:** 2967

- **Label:** 8

- **Packaging group:** III

- **EMS Number:** F-A,S-B

- **Marine pollutant:** -

- **Proper shipping name:** SULPHAMIC ACID

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8

- **UN/ID Number:** 2967

- **Label:** 8

- **Packaging group:** III

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- **Proper shipping name:** SULPHAMIC ACID
 - **Remarks:** Packing Instructions:
For Limited Quantity: Y 822 5 kg max. net/Pkg
Passenger and cargo aircraft: 822 25 kg max. net/Pkg
Cargo aircraft only: 823 100 kg max. net/Pkg
-

15 Regulations

- **Markings according to EC guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials "EC-labelling"
 - **Code letter and hazard designation of product:**
 Xi Irritant
 - **Risk phrases:**
36/38 Irritating to eyes and skin.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - **Safety phrases:**
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of soap and water.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.
 - **National regulations**
 - **Information about limitation of use:** Restrictions on juvenile employment must be observed.
 - **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
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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.

- **Department issuing MSDS:**
KFT-Chemieservice Marienstr. 3 D-64347 Griesheim
Postfach 1451 D-64345 Griesheim
Tel.: +49-6155-823241 Fax: +49-6155-823246
 - **Contact:** Angelika Torges
 - **Sources:** ESIS (European existing Substances Information System)
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