

## DATASHEET RENEGITE

### 1. Identification of the substance

- 1.1 Trademark :- RENEGITE  
1.2 Description :- Amidosulfuric acid (solid - pure)  
1.3 Use of the substance :- Scale removal  
1.4 Distributed by :- Bravilor Bonamat B.V. Pascalstraat 20  
NL-1704 RD Heerhugowaard (The Netherlands)  
- Tel. \*31 (0)72 5751751  
- Fax. \*31 (0)72 5751758

### 2. Composition / information on ingredients

- 2.1 Description :- Amiodsulfonic acid; Sulphamic Acid; Sulphamidic acid  
2.2 CAS. No. :- 5329-14-6  
2.3 EEC. No. :- 016-026-00-0  
2.4 Einecs No. :- 226-218-8  
2.5 MM :- 97.09 g/mol  
2.6 Formula (Hill) :-  $H_3NO_3S$   
Chemical formula :-  $H_2NSO_3H$

### 3. Hazards identification

- 3.1 Health hazards :- Irritating to the eyes and skin  
3.2 Ecology :- Harmful to aquatic organisms  
- May cause long-term adverse effects in the aquatic environment  
3.3 Fire hazard :- Non combustible

### 4. First aid measures

- 4.1 After skin contact :- Wash off with plenty of water / shower  
- Remove contaminated clothing  
- Do not remove clothing in case this sticks to the skin  
- Cover wounds in a sterile way  
4.2 After contact with the eyes :- Rinse out with plenty of water with the eyelids held wide open  
- Summon the help of a ophthalmologist  
4.3 After inhalation :- Let the victim breathe fresh air  
4.4 After swallowing :- Rinse the mouth with plenty of water  
- Make the victim drink plenty of water  
- Summon medical help immediately  
- Show the package/vomit to the doctor/in the hospital

### 5. Fire-fighting measures

- 5.1 Suitable extinguishing media :- In adaptation to materials stored in the immediate neighbourhood  
5.2 Special risks :- Development of hazardous combustion gases or vapours is possible in the event of fire (see paragraph 10.3)  
5.3 Special protecting clothing :- Do not stay in the danger zone without suitable chemical protection clothing and self contained breathing apparatus  
5.4 Other information :- Contain escaping vapours with water  
- Prevent fire-fighting water from entering surface water or groundwater

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### 6. Accidental release measures

- 6.1 Person related precautions : - Avoid generation of dust  
- Do not inhale dust  
- Avoid substance contact  
- Ensure supply of fresh air in enclosed rooms
- 6.2 Procedures for cleaning / absorption : - Take up dry  
- Forward for disposal  
- Clean up affected area with plenty of water  
- Clean the clothing and material used afterward
- 6.3 Environment : - Prevent the substance from entering in the environment  
- Do not allow the substance to enter the sewerage system

### 7. Handling and storage

- 7.1 Handling : - No additional requirements
- 7.2 Storage : - Store in a dry place  
- Store in tightly closed container  
- No restrictions to the storage temperature
- 7.3 Keep away from : - Heat sources  
- Oxidising agents  
- (strong) Bases  
- Easy combustible materials  
- Metals  
- Halogens

### 8. Personal Protection / exposure protection

- 8.1 Personal protective equipment:  
Respiratory protection : - Required when dusts are generated  
Eye protection : - Required  
Hand protection : - Required  
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substance handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- 8.2 Industrial hygiene : - Change contaminated clothing  
- Application of skin-protective barrier cream is recommended  
- Wash hands after working with the substance

### 9. Physical and chemical properties

- Form : - Solid  
Colour : - White  
Odour : - Odourless  
Melting temperature : - 205°C (decomposition)  
Boiling temperature : - Not available  
Density : - 2130 kg/m<sup>3</sup>  
Bulk density : - ~600 kg/m<sup>3</sup>  
Solubility in water : - 213 g/l (at 20° C)  
- 470 g/l (at 80° C)  
pH : - 1.18 (1 g/100 ml<sub>water</sub> at 25° C)  
Thermal decomposition : - 209 ° C  
log P(o/w) : - - 4.34 (calculated)

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### 10 Stability and reactivity

- 10.1 Conditions to be avoided : - Strong heating
- 10.2 Substances to be avoided : - Halogens
  - Alkalis
  - Oxidising agents (i.e. Nitrates, Nitrites, Nitric acids)
  - Metals with water
- 10.3 Hazardous decomposition products : - In the event of fire: Ammonia, Nitrous gases, Sulphur oxides

### 11. Toxicological information

- 11.1 Acute Toxicity : - LD<sub>50</sub> (oral rat): 3160 mg/kg
- 11.2 Specific symptoms with animal tests : - Eye irritation test: strong irritant effect (OECD 405)
  - Skin irritation test: strong irritant effect (OECD 404)
- 11.3 Sub acute to chronic toxicity : - No sensitising effect
  - Bacterial mutagenicity: Ames test: negative
  - Mutagenicity (mammal cell test): micronucleus negative
- 11.4 Further toxicological information : - After inhalation of dust: irritation in the respiratory tract, coughing, dyspnoea
  - After skin contact: irritant effect
  - After eye contact: strong irritant effect
  - After swallowing: irritation of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract
- 11.5 Further information : - The product should be handled with the care usual when dealing with chemicals

### 12. Ecological information

- 12.1 Ecotoxic effects : - Quantitative data on the ecological effects of this product are not available
- 12.2 Biological effects : - Harmful effect on aquatic organisms
  - Harmful effect due to pH-shift
  - Fish toxicity: *P.promelas* LC<sub>50</sub>: 70,3mg/l/96 h
  - Bacterial toxicity: *Psuidomonas putida* EC<sub>10</sub>: ≥1000 mg/l/16 h
- 12.3 Further ecological data : - May cause long-term adverse effects in aquatic environments
  - Do not allow to enter waters, waste water or soil
  - When handled and used competently no ecological problems are to be expected

### 13. Disposal considerations

- 13.1 Product : - There are no uniform EC-regulations for the disposal of chemicals or residues. Chemical residues in general count as special waste, the disposal of which is regulated in the EC member states through harmonised laws and regulations. We recommend that the authorities in charge or an approved disposal company is contacted to advice on how to dispose of this special waste.
- 13.2 Packaging : - Handle contaminated packaging in the same way as the substance itself
  - Disposal in compliance with the official regulations
  - If not specified differently, non contaminated packaging may be treated like household waste or re-cycled

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### 14. Transport information

- 14.1 Transport over land ADR/RID  
GG ADR/RID class : - 8 Number and letter : - 16c  
Marking : - UN 2967 Sulphamic Acid
- 14.2 Transport by inland vessel ADN/ADNR  
No data available
- 14.3 Transport over sea IMDG/GGVS (sea)  
IMDG/GGVS - class : - 8 UN - number : - 2967  
EMS : - F - A S - B  
Correct technical marking : - SULPHAMIC ACID Packaging group : - III
- 14.4 Transport by air ICAO-TI en IATA-DGR  
ICAO/IATA - class : - 8 UN- / ID- number : - 2967  
Correct technical name : - SULPHAMIC ACID Packaging group : - III
- 14.5 The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

### 15. Regulatory information

- 15.1 Hazard symbol : - **Xi** - **Irritating**
- 15.2 R-phrases : - 36/38 - Irritating to eyes and skin  
- 52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- 15.3 S-phrases : - (2) - (Keep out of reach of children)  
26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
- 28 - After contact with the skin, wash immediately with plenty of water  
- 61 - Avoid release to the environment. Refer to special instructions/ safety data sheets
- 15.4 NOTE :
- 15.5 EEC LIST : - EC no. 226-218-8 (EC label)
- 15.6 German regulations  
Water pollution class : - 1 (slightly polluting substance) (own classification)

### 16. Additional information

- Date of issue : - 14. April 2005
- The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. The receiver and the users of the product are responsible for a proper use in conformity with the existing legislation and regulations.