



SAFETY DATA SHEET

SULFAMIC ACID

Revised Date 26.06.2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : SULFAMIC ACID
Synonym : AMIDO SULFONIC ACID, AMIDOSULFURIC ACID, AMINOSULFONIC ACID, SULFAMIDIC ACID

Recommended the use of chemicals and restrictions on the use

- Usage suggestions :
- For hard water scales removal from cooling tower systems and evaporative condensers and rust removal from air conditioners
 - For beer stone removal from brewery equipment, glass lined tanks, kettle and open beer coolers
 - Bleaching process in pulp & paper industries
 - Manufacture of Sodium Cyclamate (artificial sweeteners)
 - Cleaning agent for chemical process industries equipments (steam boilers, condensers, heat exchanges, jacketed equipment, and piping)

Information on the manufacturer or supplier

Company : PT. Lautan Sulfamat Lestari
Address : Raya Bekasi St. Km 21, Cakung, Jakarta Timur 13930, Jakarta – Indonesia
Telephone : +62-21-4603875 **Telefax** : +62-21-4603878
Emergency Telephone : +62-21-4608644

2. HAZARD IDENTIFICATION

Hazard Classes :
Skin Irritation
Eye Irritation
Hazardous to the aquatic environment,
long-term hazard

Hazard Categories :
Category 2
Category 2A
Category 3



Potential acute Health Effects : Extremely hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion, of inhalation. Very hazardous in case of skin contact (sensitizer). Hazardous in case of skin contact (permeator). The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scalling, reddening or occasionally, blistering.

CARCINOGENIC EFFECTS : Not available. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Not available. **REPRODUCTION TOXICITY** : Not available.

Pictograms



Signal Word : Warning

**SAFETY DATA SHEET****SULFAMIC ACID**

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Hazard & Precautionary Statement :

Hazard Statement : **H315** Causes skin irritation
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects

Precautionary Statement : **Prevention** :
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response :**P302+P352 IF ON SKIN** Wash with plenty of soap and water.**P332+P313**-If skin irritation occurs: Get medical advice/attention.**P305+P351+P338 IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P337+P313** IF eye irritation persists: Get medical advice/attention.**P321** Specific treatment (See First Aid in Section 4 of SDS).**P362** Take off contaminated clothing and wash before reuse.

Disposal : P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified : None**3. COMPOSITION AND INFORMATION ON INGREDIENTS****Chemical properties** : Compound**Component**

Chemical Name	No-CAS	Concentration
Sulfamic Acid	5329 - 14 - 6	99.8%-100%

4. FIRST AID MEASURES**Never give anything by mouth to people who are not aware****First Aid Action**

Inhalation : Move to fresh air. Give oxygen or artificial respiration if necessary. Immediately call a doctor. In case of unconsciousness place patient stably in side position for transportation.

Washable skin : Immediately wash out with plenty of water for at least 15 minutes. Wash contaminated clothing before reuse.

Washable eye : Rinse well with plenty of water for at least 15 minutes and check with your doctor. Open your eyes wide open while rinsing. Remove contact lenses.

Choking / Swallowing: Rinse mouth. Immediately give plenty of water (if possible charcoal slurry). DO NOT bait to throw up. Check with your doctor if necessary.



SAFETY DATA SHEET

SULFAMIC ACID

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5. FIRE-FIGHTING MEASURES

General Information : Not combustible. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

5.1 Extinguishing media

Suitable extinguishing agents : CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising

from the substance or mixture : Nitrogen oxides (NO_x)
Sulfur Oxides (SO_x)
In case of fire, the following can be released:
In the absence of oxygen: Ammonia (NH₃)

5.3 Advice for firefighters

Protective equipment : Do not inhale gases in case of fire or combustion.

Additional information : Keep receptacles cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

General Information : Use proper personal protective equipment as indicated in Section 8.

6.1 Personal precautions : If dust/ aerosols is formed, use personal protective equipment and emergency procedures.

6.2 Environmental precautions : Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up : Pick up mechanically. For fine dusts use a vacuum cleaner.

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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Adopt adequate ventilation at places where you develop dust.

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 in a cool & dry location. Provide acid-resistant floor.

Information about storage in one common storage facility: Do not store together with alkalis (caustic solutions).

Further information about storage conditions: Keep receptacle tightly sealed.

7.3 Specific end use(s)

No further relevant information available.



SAFETY DATA SHEET

SULFAMIC ACID

Revised Date 26.06.2015

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Parameter control

Ingredients with limit values that require monitoring at the workplace: TLV not established.

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

8.2 Exposure controls

Personal protective equipment:

Equipment Respiratory Protection : If employees are facing concentrations exceed the exposure threshold, they have to wear breathing apparatus that meets the standards.

Arm protection : Ingredients: butyl rubber. Water-resistant gloves

Eye protection : Glasses / Goggles tight-fitting protective

Protective skin and body : Apron-solvent-resistan

Hygienic Measures : General industrial hygiene practice. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical realization, shape, color, etc.).

Types of objects (solid, liquid or gas) : Solid

Form : Crystalline powder

Colour : White

Odor : Odorless

Odor threshold : Data not available

pH : (1% soln/water) : 1 [Acidic]

Melting point / freezing

Melting point : 205 °C

Easy-burning properties (solid, gas): Not Flammable

Flash point : None. Not Flammable

Decomposition temperature : 209°C

Auto Ignition temperature : No available information

Lower explosion limit : No available information

Densitas

Relative specific weight : 2.126 g/ml

Viscosity : Data not available

Solubility

Solubility in Water : Mixed in water

Solubility in other solvents : ethanol

Partition coefficient (noktanol/air) : Data not available

Evaporating speed : Data not available

10. REACTIVITY AND STABILITY

Stability : Stable in normal conditions

Dangerous reactions that may be under specific conditions /

Special

Conditions to avoid : Decompose when heated



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SAFETY DATA SHEET

SULFAMIC ACID

Revised Date 26.06.2015

Materials to be avoided : No available information.
Hazardous decomposition products result : Nitrogen oxides, carbo oxides, sulfur oxides and ammonia gas. Concentrated solutions, when heated, will release sulfur dioxide, and sulfur trioxide. Aqueous solutions of Sulfamic Acid slowly hydrolyze to form ammonium sulfate and ammonium bisulfate.

11. TOXICOLOGICAL INFORMATION

Toxicological Data on Ingredients : Sulfamic Acid: Oral-Rat LD50: Acute 3160 mg/kg.

Information on toxicological effects :

Primary irritant effect:

on the skin : Irritant to skin and mucous membranes.

on the eye : Classified as having irritating properties. Irritating power due to the acidic properties.

Ingestion : It can be harmful if swallowed.

Inhalation : May be harmful if inhaled.

Sensitization : No sensitizing effects known.

Mutagenic effects : No information available.

Carcinogenic effects : No information available.

Teratogenic effects : No information available.

Toxicity for reproduction : No information available.

Degrees of poisoning by breathing other : No information available.

12. ECOLOGICAL INFORMATION

Eco-toxicity effects

Toxicity to fish : No information available.

Other : No information available.

Persistence and the ability to decrease : No information available.

Bioaccumulation : No information available.

Mobility in soil : No information available.

Other adverse effects : No information available.

13. DISPOSAL CONSIDERATIONS

Water disposal methods : Dispose as special waste in accordance with national and local regulations. Prohibited waste into the sewer. Do neutralization site.

14. TRANSPORTATION INFORMATION



US DOT

UN Number : 2967

Proper Shipping name : Sulfamic Acid

Hazard Class : 8

Packing Group : III



SAFETY DATA SHEET

SULFAMIC ACID

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IMDG

UN Number : 2967
Proper Shipping name : Sulfamic Acid
Hazard Class : 8
Packing Group : III
Marine pollutant : No information Available

IATA_C

UN Number : 2967
Proper Shipping name : Sulfamic Acid
Hazard Class : 8
Packing Group : III
Prudential actions for the transport : No information Available

15. REGULATORY INFORMATION

Chemical Weapons Convention: No TSCA 12 (b): No CDTA: No
SARA 311/312: Acute: no ; Chronic: Yes ; Fire: No ; Pressure: No ; Reactivity: no

16. OTHER INFORMATION

Reference library : ECDIN (Environmental Chem. Data and Information Network)
IUCLID (International Uniform Chemical Information Database)
NIOSH - Registry of Toxic Effects of Chemical Substances
OSHA – Occupational Safety & Health Administration
ANNEX 3 – Codification Of Hazard Statements, Codification and Use Of
Precautionary Statements And Examples Of Precautionary Pictograms

Departement : QA

Revised Date : 26.06.2015

The information provided in this Safety Data Sheet is true according to knowledge, information, and our belief at the date of issuance. The information provided is intended only as guidelines for the handling, use, processing, storage, transportation, disposal, and destruction of safe and should not be considered a warranty or quality specification. The above information concerns only the specific material designated and may not apply if the material is used as a mixture with other materials or in any process or if the material altered or processed unless specifically stated in this paper.