KRISHNA INDUSTRIES
Reg. Address: B-2, Mahavir Raw House,
Hani Park Road, New Adajan Surat -395009
Fac. Address: Plot No. 5722, GIDC,
Ankleshwar393002

KRISHNA INDUSTRIES	MATERIAL SAFETY DATA SHEET

Section – 1 : Product and Company Identification

Product Name / Identifier	SULPHAMIC ACID TECHNICAL GRADE
Synonyms	AMIDOSULFONIC ACID
CAS No	5329-14-6
Molecular Weight	97.09
Chemical Formula	NH_2SO_3H
Manufacturer Name	KRISHNA INDUSTRIES
Address	PLOT NO : 5722, GIDC ESTATE, ANKLESHWAR-393002
Chemical Identity	POWDER

Section – 2 : Composition and Information on Ingredients

Component Ingredients	Approximate Concentration	CAS or UN Number	Hazardous
SULPHAMIC ACID	98.0 – 98.5 %	5329-14-6	Yes

Section – 3 : Hazards Identification

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, scaling, reddening, or, occasionally, blistering.

Potential Chronic 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). CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation.
Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

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Section – 4: First Aid Measures

Eyes contact	Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.
Skin contact	In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Give several glasses of milk or water. Vomiting may ocur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconcious person.

Section – 5 : Fire & Explosion Data

Fire	Thermal decomposition produces highly toxic fumes.
Explosion	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Extinguishing Media	Carbon Dioxide, dry chemical powder or appropriate foam
Special Information	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

Section – 6: Accidental Release Measures

Accidental Spill	**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. **Large Spill:** Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate.

Section – 7: Handling and Storage

Handling and Storage	**Precautions:** Keep container dry. Do not ingest. Do not breathe dust. Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes **Storage:** Corrosive materials should be stored in a separate safety storage cabinet or room.

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Section – 8: Exposure Controls / Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection:	Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not Available.

Section – 9: Physical and Chemical Properties

Description	White Solid Powder.
Odour / Colour	Not Available.
Solubility	Soluble in cold water.
pH	Acidic
% Volatiles by volume @ 21C (70F):	Not Available.
Specific Gravity	2.15 (Water = 1)
Boiling Point	Not Available.
Melting Point	Decomposes. (205°C or 401°F)
Vapour Density (Air=1)	Not Available.
Vapour Pressure (mm Hg)	Not Available.

Section – 10: Stability and Reactivity Data

Stability **If no, under what condition**	Stable under ordinary conditions of use and storage.
Incompatibility to other **If yes, Which one**	Chlorine hypochlorous acid, hypochlorites, cyanide or sulfides.
Hazardous decomposition Products	oxides of sulfur. Nitrogen, water and ammonia gas.
Hazardous Polymerisation	Will not occur.
Conditions to Avoid	None known.

Section – 11: Toxicological Information

Eye Contact	Causes eye irritation.
Skin Contact	May cause skin irritation.
Ingestion	May be harmful if swallowed.
Carcinogenicity	The substance is toxic to lungs, mucous membranes.
Acute oral toxicity (LD50): 3160 mg/kg [Rat].	

Section – 12: Ecological Information

Ecotoxicity:	No information found.
BOD5 and COD:	No information found.
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:	The products of degradation are as toxic as the original product.
Special Remarks on the Products of Biodegradation:	No information found.

Section – 13 : Disposal Considerations

Waste Disposal	Collect and add slowly to large volume of agitated solution of soda ash and slaked lime. Add neutralized solution to excess running water in accordance with applicable regulations

Section – 14: Transport Information

Proper Shipping Name	SULPHAMIC ACID
Packing Group	III
Maritime Transportation	No Data Available
Hazardous Class	8 Corrosive Solid

Section – 15: Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Sulfamic acid
Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other Classifications:
WHMIS (Canada): CLASS E: Corrosive solid.
DSCL (EEC): R35- Causes severe burns. R43- May cause sensitization by skin contact.
HMIS (U.S.A.):
Health Hazard: 3
Fire Hazard: 0
Reactivity: 1
Personal Protection: j
Protective Equipment:
Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

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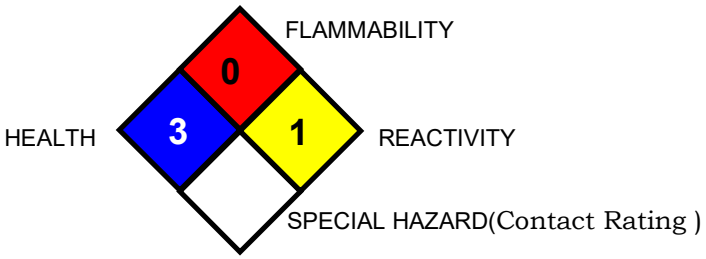
Section – 16 : Other Information



Label Hazard Warning:

WARNING! CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.

Revision Date of MSDS

01 April 2011	Authorized Signatory:

THE INFORMATION FURNISHED IN THIS MATERIAL SAFETY DATASHEET IS PREPARED TO THE BEST OF OUR KNOWLEDGE AND IS DEEMED CORRECT AT THE TIME OF PUBLICATION. HOWEVER IT DOES NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES AND DOES NOT ESTABLISH LEGALLY BINDING CONTRACT. AS NEW INFORMATION BECOMES AVAILABLE, IT WILL BE PROVIDED TO YOU IN THE FORM OF A REVISED DATA SHEET, THE USER SHOULD CONTACT KRISHNA INDUSRIES., ANKLESHWAR, INDIA, IF REQUIRES ANY ADDITIONAL INFORMATION.