

# Sulfamic Acid Crystals



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## Cleaning Action for Most Tile & Stone Surfaces Including:

- Acid-Resistant Glazed Tile
- Unglazed Ceramic Tile
- Flamed & Honed Granite
- Cleft & Honed Slate
- Cement Grout & Mortar
- Quarry Tile
- Porcelain Tile
- Tumbled & Honed Marble
- Tumbled & Honed Limestone
- Masonry

## Special Features

- Fast Acting
- Interior & Exterior
- Easy-to-Use
- Less Expensive

## PRODUCT DESCRIPTION

**KEEP OUT OF REACH OF CHILDREN.** Sulfamic Acid Crystals are a fast acting, mild acid cleaner for textured, non polished, natural and manufactured surfaces. Sulfamic Acid Crystals remove sanded grout & mortar residue, joint cement, lime & hard water deposits, efflorescence, rust and other heavy dirt and grime. Sulfamic Acid Crystals are suitable for interior and exterior use. Sulfamic Acid Crystals will help even out uneven colored grout installations. Do not use on acid sensitive surfaces.

## Sample Testing

Due to the differences of each material, several inconspicuous test patches should be completed to assure maximum performance. **Users must determine the suitability of the product for their intended use.**

## Protect Neighboring Surfaces

Always protect neighboring surfaces including wood, carpet, metal, landscaping and other surfaces.

## APPLICATION INSTRUCTIONS

Read the entire label and PDS before using.

Allow newly grouted and concrete surfaces to cure a minimum of 7 days prior to using. For light cleaning mix a solution of Sulfamic Acid Crystals by adding 1/2-cup to 1 gallon of clean water. For heavy duty cleaning mix 3/4-cup to 1 gallon of clean water. Mix until the crystals are completely dissolved. In colder weather or cold water, not all of the crystals may dissolve. Use of cold water will slow the crystals dissolving. Pre-wet the surface with clean water. Apply the solution to the surface and allow to dwell for 3 - 5 minutes while agitating the surface with a brush. **Do not allow the solution to dry on the surface.** Work small areas. Extract all dirty remains with a wet vacuum system. Multiple applications may be necessary. After extracting Sulfamic Acid Crystal solution, rinse thoroughly with clean water. Once the cleaning is complete, rinse with appropriate Mira Clean #1 mixed at 10 parts 511 H<sub>2</sub>O to 1 part Mira Clean #1.

If a non acid deep cleaning is necessary, use Liquid Powlitice as directed.

**Light Cleaning:** Use Mira Clean #1, Porcelain & Ceramic Tile Cleaner, Grout Cleaner or Mira Soap as directed.

## Special Notes:

Do not mix with ammoniate cleaners as harmful fumes may result.

Not recommended for use on very porous tile, stone or masonry.

Acids, no matter how mild, may etch, lighten or alter the color of tile, cementious and natural stone surfaces. Repeated acid washing may damage some surfaces.

Avoid contact with metals.

Allow new grout, concrete, cement or masonry to cure per manufacturers specification before using Sulfamic Acid Crystals.

## Water, Stain & Slip Protection

To protect cleaned areas from future soiling, staining and increase static coefficient of friction, we recommend applying the appropriate Miracle Penetrating Sealer/Impregnator.

## Color and Gloss Enhancement

For added color with "Textured and Non polished" surfaces, 511 Seal & Enhance or Mira Matte may be used. For porous type "Paver", 511 Seal & Enhance, Stone Polish, Granite Brite, Mira Polish, Mira Dust, Marble Conditioner or Tile Brite may be used as directed.

## Polish Enhancement

Periodically use Mira Dust, Marble Conditioner, Mira Brite, Mira Polish or Granite Brite as directed.

## Mold, Mildew and Bacteria Sanitation

For best results in killing mold, mildew, bacteria and other micro organisms, use Miracle Wipes as directed.

## Coverage

Coverage will vary depending on density, porosity, texture, surface absorption, weather, time solution left on surface and application methods. Used as directed, Sulfamic Acid Crystals will cover approximately 350 - 600 square feet per pound (31 - 55 square meters per .02 kilograms)

## MAINTENANCE

For ongoing maintenance instructions please refer to Miracle Sealants Care Guide. Refer to the Miracle Sealants Product Recommendation Chart for specific product recommendations.

## Storage

Store Sulfamic Acid Crystals in the original container, properly sealed to avoid contamination or evaporation. Stored at 77° F (40° C), Sulfamic Acid Crystals will have a shelf life of 12 months. Do not allow to freeze.

## Technical Support

For additional technical support, contact Miracle Sealants Company at 1-800-350-1901 or 626-443-6433 ext. 3013

## Office Hours

Monday - Friday from 8:30 am - 5:00 pm PT.  
1-626-443-6433 or 1-800-350-1901 • Fax: 1-626-443-1435  
website: www.miraclesealants.com

## Product Damaged During Transportation

If product is damaged during transportation contact Info Trac @ 1-800-535-5053

## Additional Products

Miracle Sealants Company offers a complete line of water & stain repellents, sealers, cleaners, polishing compounds, diamond abrasives, machinery and accessories for the tile, stone, concrete, metal, fabric and carpet professional or a do-it yourself specialist.

## Caution

Sulfamic Acid Crystals contain acid crystals. Keep away from eyes and skin. Do not inhale or swallow. Chemical resistant gloves and respirators should be worn at all times. Use in a well-ventilated area. Good ventilation means fresh air is flowing in such a way to feel a slight breeze. Continue to ventilate until odors are completely eliminated. Inhaling odors can be harmful. Keep away from heat and flames. Avoid prolonged contact with skin. Keep small children and pets out of the area until products or surfaces have thoroughly dried. **Refer to the MSDS for additional information.**

## Warranty

Instructions are a condensed guide and should not be considered complete. In the event of failure, the only obligation of Miracle Sealants Company shall be to replace such products proven to be defective. **Before using, users shall determine the suitability of the product for their intended use Users assume all risks and liability whatsoever in connection therein.** Neither seller nor manufacturer shall be liable for any injury or inability to use this product.

# Sulfamic Acid Crystals



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**Osha's Hazard Communication Standard  
U.S. Department Of Labor**

Identity No: \_\_\_\_\_ Name: Sulfamic Acid Crystals

**Section 1**

Manufacturers Name: Miracle Sealants Company  
Address: 12318 Lower Azusa Road  
Emergency Phone: 800-350-1901  
City: Arcadia  
State: CA  
Phone: 626-443-6433  
Date Prepared: 10-2008

**Section 2 - Hazardous Ingredient/Identity Information**

Hazardous Components	CAS#	OSHA/PEL	ACGIH TLV
Sulfamic Acid	5329-14-6	Not Applicable	Not Applicable

"FOR COMMERCIAL USE ONLY; NOT TO BE USED AS A PESTICIDE"

Component Exposure Limits:  
The Exposure limits are given for Particulates Not Otherwise Classified.

OSHA: 15mg/m<sup>3</sup> TWA (Total Dust)  
5mg/m<sup>3</sup> TWA (Respirable fraction)  
4mg/m<sup>3</sup> TWA (Inhalable fraction)  
1,5mg/m<sup>3</sup> TWA (Respirable fraction)

VOC : 0% by weight before dilution

**Section 3 - Physical/Chemical Characteristics**

Boiling point: 408° F  
pH: 1.18 (1% solution)  
Vapor pressure (mmHg): Not Applicable  
Vapor density (Air=1): Not Applicable  
Evaporation rate: Not Applicable  
Volatility/VOL (%): Not Applicable  
Solubility in water: 14.7% at 0° C  
Appearance and odor: White crystalline solid/Odorless

**Section 4 - Fire And Explosion Hazard Data**

Flash point: Not Available at this time  
LEL: 9.3%  
Flammable limits: Not Available  
UEL: 9.3%

NFPA hazard rating (0 = Least, 4 = Extreme)  
Health: 3  
Reactivity: 0  
HMIS Hazard Rating:  
Health: 3\*  
Reactivity: 0  
Chronic Hazard\*

Extinguishing media: Dry chemical, foam, CO<sub>2</sub>, water fog  
Special fire fighting procedures: None  
Unusual fire and explosion hazards: None

**Section 5 - Reactivity Data**

Hazardous Decomposition:  
Nitrogen oxides, carbon oxides, sulfur oxides and ammonia gas. Concentrated solutions, when heated, will release sulfur dioxide, and sulfur trioxide. Aqueous solutions of Sulphamic Acid slowly hydrolyze to form ammonium sulfate and ammonium bisulfate.

**Section 6 - Health Hazard Data**

**Routes of Entry:**  
Inhalation - May cause irritation of the mucous membrane, throat and nose. May cause chest discomfort and coughing.  
Ingestion - Irritant to mucous membranes and digestive tract.  
Skin - Irritant to skin and mucous membranes.  
Eyes - Severe irritation to eyes. May cause burns

**Health Hazards:**  
Chronic: Unnecessary exposure to any chemical should be avoided.  
Threshold limit value: Not Available

Carcinogenicity:  
OSHA: No information Available  
IARC Monographs: No information Available  
NTP: No information Available

**Emergency Overview:**

Sulfamic Acid is a white, crystalline, odorless solid. Harmful or fatal if swallowed. Corrosive to skin and respiratory tract. Can cause permanent damage to eyes. Fire may produce irritating, corrosive and/or toxic vapors. Firefighters should use full protective equipment and clothing.

**Hazard Statements**

CORROSIVE. CAUSES SKIN, EYE AND RESPIRATORY TRACT BURNS. HARMFUL IF SWALLOWED OR INHALED. Can cause irritation of eyes and skin. May cause respiratory tract irritation, and in extreme cases, ulceration and perforation of the respiratory tract. Avoid contact with eyes and skin. Avoid breathing dusts. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Keep from contact with clothing and other combustible materials.

Potential Health Effects: Eyes  
Exposure to particulates or solution of this product may cause redness, pain and blurred vision. Prolonged contact may cause corneal injury.

Potential Health Effects: Skin  
This product can cause irritation of the skin with pain, itching and redness. Depending on the duration of skin contact, skin overexposure may cause chemical burns resulting in blistering of skin and possible scarring. Repeated skin overexposure can result in dermatitis.

Potential Health Effects: Ingestion  
Harmful if swallowed. May cause gastrointestinal irritation with symptoms such

as nausea, vomiting, and diarrhea.

Potential Health Effects: Inhalation  
May irritate the nose, throat and respiratory tract. Symptoms can include sore throat, coughing and shortness of breath. In severe cases, ulceration and perforation of the nasal septum and upper respiratory tract can occur. In severe cases, pulmonary edema may occur that could potentially lead to death.

HMIS Ratings: Health Hazard: 3\* Fire Hazard: 0 Physical Hazard: 1  
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3=Serious 4 = Severe  
\* = Chronic hazard

**Section 4 - First Aid Measures**

**First Aid: Eyes**  
In case of contact with eyes, rinse immediately with plenty of water for at least 20 minutes. Seek immediate medical attention.

**First Aid: Skin**  
Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek immediate medical attention if irritation develops or persists.

**First Aid: Ingestion**  
DO NOT INDUCE VOMITING. If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to a victim who is unconscious or having convulsions. Contact a physician or poison control center immediately.

**First Aid: Inhalation**  
Remove source of contamination or move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult. Get immediate medical attention.

**First Aid: Notes to Physician**  
Provide general supportive measures and treat symptomatically.

**Section 7 - Precautions For Safe Handling And Use**

Accidental Release Measures  
Containment Procedures  
Stop the flow of material, if this can be done without risk. Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent, which does not react with product (see Section 10 for incompatibility information).

Clean-Up Procedures  
For small releases, clean-up spilled liquid wearing gloves, goggles, faceshield, and suitable body protection. Sweep-up or vacuum spilled solid. Decontaminate the areas thoroughly. Neutralize spill residue with hydrated lime (calcium oxide), soda ash or sodium bicarbonate. Test area with litmus paper to ensure neutralization. Place all spill residues in a suitable container. Thoroughly wash the area after clean-up. Prevent spill reinstate from contamination of storm drains, sewers, soil or groundwater.

Evacuation Procedures  
Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. Keep materials which bum away from spilled material. In case of large spills, follow all facility emergency response procedures.

Special Procedures  
Remove soiled clothing and laundry before reuse. Avoid all skin contact with the spilled material. Have emergency equipment readily available.

**Section 8 - Control Measures**

Respiratory protection: Ventilate by opening all doors and windows. If exposure above the TLV or PEL require a NIOSH approved respirator equipped for the exposure or suitable respiratory protection per 29 CFR 1910.134 is required.

Ventilation: Provide local exhaust or general dilution ventilation system.  
Protective gloves: Plastic or rubber, chemical resistant.  
Eye protection: Tight fitting splash proof safety goggles.  
Other protective clothing or equipment: Chemical resistant clothing.

Work hygienic practices: Wash hands thoroughly before handling food stuffs, liquids or tobacco products. Use common sense and care around chemicals. Never mix this product with other chemicals. Consult your supervisor for all other hygienic and safety practices. All practices depend on your specific business. Directions for use normally found on label which will dictate engineering and control measures.

**Section 9 - Shipping & Regulatory Classification**

DOT Shipping Name: Sulfamic Acid. Please refer to the Bill of Lading receiving/documents for up-to-date information.

DOT#: UN 1760  
Packaging Group: III  
STORE IN A COOL DRY PLACE.  
Hazard Class: Class 8  
UN Number: 2967

Toxic Substances Control Act (TSCA): This product and/or all the ingredients contained in this product have been registered under the Toxic Substances Control Act.

SARA: No SARA 313 chemicals identified.

NOTE: Miracle Sealants believes the data set forth are accurate. Miracle Sealants makes no warranty with respects thereto and disclaims all liability or reliance thereon. Such data are offered solely for consideration, investigation and verification. Also, the data set forth is for the concentrated finished product. All lab samples are for experimental purposes only and used at the customers discretion.