WALL FIRMA, INC.

Concentrated Crystals
Concrete Cleaner

Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name	**Sulfamic Acid**	**Catalog Code(s)**	09712/30, 10950, D950, D951
Contact Information:	WALL FIRMA, INC 733 East Main St Monongahela, PA15063 Tel : (724) 258-7175	**CAS#**	5329-14-6
		RTECS	WO5950000
		TSCA	8(b) inventory: Sulfamic acid
Commercial Name(s)	Damtite/Sunny Dry Concrete Cleaner	**CI#**	Not Available
Synonym	Amidosulfonic acid/ sulfamidic acid	**Use of the Substance/mixture**	Chemical cleaner/etch
Chemical Name	Not Available	**IN CASE OF EMERGENCY**	
Chemical Family	Not Available	**CHEMTREC (24 hr)**	
Chemical Formula	H3NO3S	**800-424-9300**	

Section 2: Hazard Identification

Classification (GHS-US)	Skin Corr. 1C	H314
	Eye Dam. 1	H318
	Aquatic Acute 2	H401
	Full text of H-phrases: see section 16	
Hazard pictograms (GHS-US)		
Signal word (GHS-US)	Warning	
Hazard statements (GHS-US)	H314 - Causes severe skin burns and eye damage H401 - Toxic to aquatic life	
Precautionary statements (GHS-US)	P260 - Do not breathe dust P264 | Wash exposed skin thoroughly after handling P273 | Avoid release to the environment P280 | Wear protective gloves, eye protection, protective clothing | P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting | P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower | P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing | P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing | P310 - Immediately call a poison center/doctor | P363 - Wash contaminated clothing before reuse |P405 - Store locked up| P501 - Dispose of contents/container to comply with local, state and federal regulations	

Section 3: Composition or information on ingredients

substance type	Mono-constituent	
Name	CAS#	% by weight
Sulfamic acid	5329-14-6	100

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Section 4. First Aid Measures

First-aid measures general	Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Doctor: administration of corticoid spray.
First-aid measures after skin contact	Wash immediately with lots of water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Do not give chemical antidote.

Section 5. Fire-Fighting Measures

Explosion Hazards in Presence of Substances	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 Fighting Media and Instructions	Adapt extinguishing media to the environment
	Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows. Firefighting instructions: Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it. Protection during firefighting: Heat/fire exposure: compressed air/oxygen apparatus.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Material in powder form is capable of creating a dust explosion.

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Section 6. Accidental Release Measures

For non-emergency personnel :	
Protective equipment	Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Dust cloud production: dust-tight suit. See "Material-Handling" to select protective clothing.
Emergency procedures	Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
Measures in case of dust release	In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.
For emergency personnel :	
Protective equipment	Equip cleanup crew with proper protection. Do not breathe dust.
Emergency procedures	Ventilate area. Stop release.
Environmental precautions	Stop release. Ventilate area.
Methods and material for containment and cleaning up :	
For containment	Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the solid spill. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapor with water curtain. Knock down/dilute dust cloud with water spray
Methods for cleaning up	Prevent dust cloud formation. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

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Section 7. Handling and Storage

Precautions	Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
Storage	Store in a dry area. Meet the legal requirements. KEEP SUBSTANCE AWAY FROM: heat sources, oxidizing agents. strong acids. (strong) bases. halogens. water/moisture.
Incompatible products	Strong bases. Strong oxidizers. Strong reducing agents.
Heat-Ignition	KEEP SUBSTANCE AWAY FROM: heat sources.
Prohibitions on mixed stroage	KEEP SUBSTANCE AWAY FROM: oxidizing agents, strong acids (strong) bases, halogens, water/moisture.
Storage Area	Store in a dry area. Meet the legal requirements
Special rules of packaging	SPECIAL REQUIREMENTS: closing. watertight. dry. clean. correctly labelled. Meet the legal requirements. Secure fragile packagings in solid containers.
Packagaing materials	SUITABLE MATERIAL: cardboard. Plastics. MATERIAL TO AVOID: No data available.

Section 8. Exposure Controls/ Personal Protection

Engineering Controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
Materials for protective clothing	GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: neoprene. PVC. nitrile rubber. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.
Hand protection	Gloves.
Eye protection	Face shield. In case of dust production: protective googles
Skin and body protection	Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing.
Respiratory protection	Dust produc

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Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. Crystalline solid. Crystalline powder.
Molecular Weight	97.09 g/mole
pH (1% soln/water)	1 [Acidic.]
Boiling Point	Not Available
Melting Point	Decomposes. (205°C or 401°F)
Critical Temperature	Not available.
Specific Gravity	2120 kg/m^3
Vapor Pressure	Not applicable.
Vapor Density	Not available.
Volatility	Not available
Odor Threshold	Not available
Water/Oil Dist. Coeff.	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water.
Odor	Not available
Taste	Not available.
Color	Colourless or white
Solubility	Decomposes on exposure to water. Water: 18g/100ml
Odor	Odourless
Log Pow	0.10 (Experimental value)
Relative Density	2.1
VOC content	0%
Other properties	Substance has acid reaction.

Section 10. Stability and Reactivity Data

Reactivity	Decomposes slowly on exposure to water(moisture): release of corrosive products. This reaction is accelerated on exposure to temperature rise. Reacts on exposure to water(moisture) with(some) metals: release of highly flammable gases/vapours(hydrogen). On burning: release of toxic and corrosive gases/vapours(nitrous vapours, sulphur oxides). Reacts violently with (strong) oxidizers. Reacts exothermically with(some) bases.
Chemical stability	Unstable on exposure to moisture
Possibility of hazardous reactions	Not established.
Conditions to avoid	Incompatible materials.
Corrosivity	Non-corrosive in presence of glass.
Incompatible materials	Strong bases. Strong oxidizers. Strong reducing agents.
Hazardous decomposition products	Sulfur compounds.
Polymerization	Not occur

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Section 11. Toxicological Information

Routes of Entry	Eye contact. Inhalation. Ingestion. Dermal contact.
Toxicity to Animals	Acute oral toxicity (LD50): 3160 mg/kg [Rat]. LD50 dermal rat. 2000mg/kg
Skin corrosion/irritation	Causes severe skin urns and eye damage. pH: 1.2(1%)
Serious eye damage/irritation	Causes serious eye damage.
Symptoms/injuries after inhalation	Dry/sore throat. Coughing. ON CONTINUOUS EXPOSURE/CONTACT: Respiratory difficulties. Corrosion of the upper respiratory tract.
Symptoms/injuries after skin contact	Tingling/irritation of the skin. ON CONTINUOUS EXPOSURE/CONTACT: Caustic burns/corrosion of the skin
Symptoms/injuries after eye contact	Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue.
Symptoms/injuries after ingestion.	Nausea. Vomiting. Abdominal pain. Diarrhoea.
Chronic symptoms	No effects known.

Section 12. Ecological Information

Ecotoxicity	Hazardous to the aquatic environment - Acute Hazard Category 2
BOD5 and COD	Not available.
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	Not available.

Section 13. Disposal Considerations

Waste disposal recommendations	Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery.
Additional information	LWCA (the Netherlands): KGA category 06. Hazardous waste according to Directive 2008/

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Section 14. Transport Information

In accordance with DOT Transport document description	UN2967 Sulfamic acid, 8, III
UN-No.(DOT)	UN2967
Proper Shipping Name (DOT)	Sulfamic acid
Transport hazard class(es) (DOT)	8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT)	8 - Corrosive
Packing group (DOT)	III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx)	213
DOT Packaging Bulk (49 CFR 173.xxx)	240
DOT Special Provisions (49 CFR 172.102)	IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	100 kg
DOT Vessel Storage Location	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

Section 15. Other 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 Classification	
WHMIS (Canada):	Class E: Corrosive solid.
DSCL(EEC)	R35 - Causes severe burns. R43- May cause sensitization by skin contact
HMIS (USA.):	Health Hazard : 3 - Major injury likely unless prompt action is taken and medical treatment is given
	Fire Hazard : 0 - Materials that will not burn
	Reactivity : 1 - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
	Personal Protection : j
National Fire Protection Association (U.S.A.):	Health : 3
	Flammability : 0
	Reactivity : 1
	Specific hazard :

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Section 16. Other Information

Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1C	Skin corrosion/irritation Category 1C
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H401	Toxic to aquatic life
References	http://www.labchem.com/tools/msds/msds/LC25420.pdf
Last Revision Date	April 2016
NFOA health hazard	2- Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	0- Materials that will not burn.
NFPA reactivity	1- Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.
Personal Protection	F-Safety glasses, Gloves, Synthetic apron, Dust respirator

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