

SAFETY DATA SHEETS

This SDS packet was issued with item:

078071401

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

076785570

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

078127988

WATERWISE[®] Inc

3608 Parkway Blvd
Leesburg FL 34748-9744
(352)-787-5008

CHEMICAL EMERGENCY HOTLINE: CHEMTREC 1-800-424-9300

PRODUCT NAME: **KLEENWISE[®]**

PRODUCT DESCRIPTION: YELLOW, CRYSTALS, ESSENTIALLY ODORLESS

MATERIAL SAFETY DATA SHEET ESSENTIALLY SIMILAR TO OSHA-20

NE=NOT ESTABLISHED NA=NOT APPLICABLE

SECTION 1 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	TLV	OSHA PEL	Section 313?	% (optional)
Sulfamic Acid	5 329-14-6	NE	No	---	

SECTION 2 - PHYSICAL DATA

Boiling point	NA	Vapor density (Air = 1)	NA.
Specific gravity	NA.	Vapor pressure (mm Hg @ 70°F)	NA.
Percent volatile	NA.	Evaporation rate (Ether = 1)	NA
Appearance and odor	see document header	Solubility in water	Complete
PH	1.5 (5%)		

NFPA Ratings: Health – 2, Flammability – 0, Reactivity – 0, Other - 0

SECTION 3 - FIRE AND EXPLOSION

FLASH POINT (temp at which it gives off combustible vapors) NA

Flammable limits-- lower: Non-combustible

Flammable limits-- upper: Non-combustible

EXTINGUISHING MEDIA: As needed for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus. Use protective clothing to avoid skin contact with product.

UNUSUAL FIRE & EXPLOSION HAZARDS: None (non-combustible)

SECTION 4 - REACTIVITY DATA

STABLE: yes

CONDITIONS TO AVOID: Contact with incompatible materials (listed below)

INCOMPATIBILITY: Bases, carbonates, metal oxides, active metals, chlorine, hypochlorous acid, hypochlorites, cyanide or sulfides.

HAZARDOUS DECOMPOSITION PRODUCTS: SO_x, NO_x, and ammonia

HAZARDOUS POLYMERIZATION: will not occur.

SECTION 5 - HEALTH HAZARD DATA

Threshold limit value: NE, blended product. We recommend an 8-hour time weighted average of 1 mg/m3 in air.

Health hazards: None known or expected beyond acute effects.

This product or its' ingredients have not been identified as a carcinogen or probable carcinogen by: NTP, IARC Monographs, or OSHA.

Medical conditions generally aggravated by exposure: Dermatitis and similar skin disorders from contact respiratory disorders from breathing dust or mists of solution.

Primary Routes of Entry: Eye contact, skin contact, Inhalation of dust or solution spray.

EFFECTS OF OVEREXPOSURE

EYES: Burns

SKIN: possible irritation or burns upon prolonged contact.

INHALATION: (of dust) irritation of nose and throat. Possible burns, chemical Pneumonia, and lung damage. Note: inhalation of dust is an unlikely route of exposure. The product is dedusted and non-volatile.

INGESTION: Burns of mouth, throat, and stomach; pain, nausea, vomiting, shock symptoms.

EMERGENCY AND FIRST AID PROCEDURES

- EYES:** Immediately flush eyes with cool running water for at least 15 minutes while holding eyelids apart. Remove contact lenses if applicable. Contact a physician.
- SKIN:** Rinse thoroughly with cool water for 15 minutes. Remove contaminated clothes and wash before reuse. Contact a physician if irritation persists or a burn develops.
- INHALATION:** Remove to fresh air. If breathing difficulties occur or irritation is severe, seek medical attention.
- INGESTION:** Drink large quantities of water or milk to dilute. Do not induce vomiting unless directed by medical personnel. Call for immediate medical advice or assistance.

SECTION 6 - PROTECTIVE EQUIPMENT

- RESPIRATOR TYPE:** NIOSH/MSHA approved respirator where conditions may cause exposure limits to be exceeded from dust of product or mists of solutions.
- VENTILATION:** Use with general or local ventilation to avoid exposure to irritating product dust or mists of solution (product is dedusted).
- EYE PROTECTION:** Safety goggles and/or face shield to prevent eye exposure.
- PROTECTIVE CLOTHES:** Acid resistant, impermeable gloves. Full body covering with rubber apron and shoes to prevent contact.
- OTHER PROTECTIVE EQUIPMENT** Eyewash stations. Rubber protective clothing as required to avoid prolonged or repeated skin contact.

SECTION 7 - PRECAUTIONS FOR HANDLING AND USE

- HANDLING AND STORING:** Incidental contact with this product normally causes no harm. However, as with any industrial cleaner, some basic safety measures should be observed. Guard against ingestion of dusts, etc. and wash thoroughly after handling. Do not get in eyes, on skin, or leave on clothing.
- STORAGE PROCEDURES:** Store in a cool dry , place away from sources of contamination and/or non compatability. Keep container closed to avoid caking or contamination.
- SMALL SPILLS:** For spills 5 pounds or less, wear glasses and rubber gloves and recover as practical. Neutralize area with sodium bicarbonate, soda ash, lime, or general alkaline detergent. Flush to drain with excess water flow.
- LARGE SPILLS:** Only knowledgeable and properly protected people should work with a large spill. Get professional assistance if necessary. Stop source of discharge if safe to do so. Evacuate unprotected personnel from the immediate area. Contain spilled material and keep from discharging to surface waters. Recover to drum for later use, treatment or disposal. Recover using acid resistant pump, scoops, absorbent material, or other process as appropriate. Neutralize contaminated area with Sodium Bicarbonate, soda ash, lime, or general alkaline detergent. Flush to drain. Notify local, state, or national authorities if required.
- WASTE DISPOSAL METHODS:** Dispose of waste as allowed by local, state, and federal regulations.
- TRANSPORTATION INFO:** U. S. DOT INFORMATION
- | | |
|--------------------------------------|---------------------|
| Shipping Name: Sulfamic Acid Mixture | Hazard Class - 8 |
| UN/NA #: UN - 2967 | Packing Group - III |

DISCLAIMER: The above information is, to the best of our knowledge, current, accurate, and complete based on information reasonably available to us as of the date of preparation of this form. However, it is the user's responsibility to determine the safety, toxicity and suitability for his or her own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by us as to the effects of such use or on the safety or toxicity of this product. Nor do we assume any liability arising out of use by others of the product. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when exceptional conditions or circumstances exist or because of applicable laws or regulations.

1. Product and Company Identification

Product identifier Kleenwise®
Other means of identification Not available
Recommended use Water Processing Equipment Cleaner
Recommended restrictions None known.
Responsible Party Waterwise® Inc
 3608 Parkway Blvd.
 Leesburg, FL 34748-9399 US
 Phone 352-787-5008
 Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards Corrosive to metals Category 1
Health hazards Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.
Label elements



Signal word Danger
Hazard statement May be corrosive to metals.
 Causes severe skin burns and eye damage.
Precautionary statement
Prevention Keep only in original container.
 Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response Absorb spillage to prevent material damage.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Specific treatment (see this label).
Storage Store in corrosive resistant container with a resistant inner liner.
 Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information Not applicable.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Sulfamic acid		5329-14-6	60 - 100
Citric Acid		77-92-9	10 - 30

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation If inhaled: Remove person to fresh air and keep comfortable for breathing.

Skin contact	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Eye contact	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
Ingestion	If swallowed: Rinse mouth. Do NOT induce vomiting.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wear rubber gloves and chemical splash goggles.

5. Fire Fighting Measures

Suitable extinguishing media	Carbon dioxide (CO2). Water spray. Dry chemical powder. Foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Absorb spillage to prevent material damage. Use water spray to reduce vapors or divert vapor cloud drift. Large Spills: Wet down with water and dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Use only with adequate ventilation. Avoid breathing dust. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin or on clothing.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in corrosive resistant container with a resistant inner liner. Store in a closed container away from incompatible materials. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Keep out of the reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Other	As required by employer code. Rubber apron recommended.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Powder.
Physical state	Solid.
Form	Solid.
Color	Yellow
Odor	Odorless
Odor threshold	Not available.
pH	0.89 (10% w/w), Acid reserve 33.56g NaOH/100g
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with reducing agents. May react with strong bases or oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Caustics. Oxidizers. Bases. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Ammonia. Oxides of carbon. Oxides of nitrogen. Oxides of sulfur.

11. Toxicological Information

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
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Information on likely routes of exposure

Ingestion	Causes digestive tract burns.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects**Acute toxicity**

Components	Species	Test Results
Citric Acid (CAS 77-92-9)		
Acute		
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Mouse	5040 mg/kg
	Rat	3000 mg/kg
Sulfamic acid (CAS 5329-14-6)		
Acute		
<i>Oral</i>		
LD50	Guinea pig	1050 mg/kg
	Mouse	1312 mg/kg
	Rat	3160 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not available.	
Chronic effects	Prolonged inhalation may be harmful. Non-hazardous by WHMIS/OSHA criteria.	
Further information	Not available.	
Name of Toxicologically Synergistic Products	Not available.	

12. Ecological Information

Ecotoxicity	See below		
Components		Species	Test Results
Citric Acid (CAS 77-92-9)			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	120 mg/l, 72 hr
Aquatic			
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	1516 mg/l, 96 hr
Sulfamic acid (CAS 5329-14-6)			
Aquatic			
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	14.2 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available.		
Mobility in soil	No data available.		
Mobility in general	Not available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1759
Proper shipping name	Corrosive solids, n.o.s. (Sulfamic acid)
Hazard class	8
Packing group	III
Special provisions	128, IB8, IP3, T1, TP33
Packaging exceptions	154
Packaging non bulk	213
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1759
Proper shipping name	CORROSIVE SOLID, N.O.S. (Sulfamic acid)
Hazard class	8
Packing group	III
Special provisions	16

DOT



TDG



15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Canada WHMIS Ingredient Disclosure: Threshold limits

Citric Acid (CAS 77-92-9)	1 %
Sulfamic acid (CAS 5329-14-6)	1 %

WHMIS status Controlled

WHMIS classification Class E - Corrosive Material

WHMIS labeling



US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance	No
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SARA 311/312 Hazardous chemical	No
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SARA 313 (TRI reporting)	Not regulated.
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Other federal regulations

Safe Drinking Water Act (SDWA)	Not regulated.
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Food and Drug Administration (FDA)	Not regulated.
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US state regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Sulfamic acid (CAS 5329-14-6) Listed.

US - Texas Effects Screening Levels: Listed substance

Citric Acid (CAS 77-92-9) Listed.

Sulfamic acid (CAS 5329-14-6) Listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Rhode Island RTK

Not regulated.

Inventory status

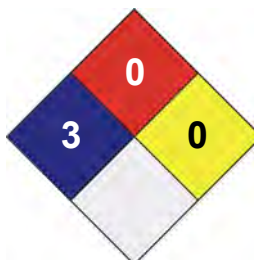
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

**Disclaimer**

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date

12-February-2015

Effective date

01-February-2015

Expiry date

01-February-2018

Further information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Prepared by

Dell Tech Laboratories Ltd. Phone: (519) 858-5021

Other information

Redbook revision # 1, 1/23/14

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.