

Safety Data Sheet

Issued Date: February 25, 2016

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Version 2

1. IDENTIFICATION

Product Identifier

Product Name F-420 Laundry Sour

Other means of identification

Product Code F-420

Recommended use of the chemical and restrictions on use

Recommended Use Neutralizing agent for alkali and detergent builders for industrial use.

Details of the supplier of the safety data sheet

Missouri Vocational Enterprises
 2727 Highway K
 Bonne Terre, MO 63628
 Phone: (573) 358-5516

Emergency Telephone Number

INFOTRAC 1-800-535-5053 (North America)
 1-352-323-3500 (International)

2. HAZARDOUS IDENTIFICATION

Signal Word **WARNING**

Classification	Hazard Category
Acute Toxicity – Oral	3
Acute Toxicity – Inhalation (Dusts/Mists)	3
Acute Toxicity – Dermal	3

Health Hazard Statement(s)

H302 – Harmful if swallowed. H320 – Causes eye irritation.
 H312 – Harmful in contact with skin. H332 – Harmful if inhaled.
 H314 – Causes severe skin burns and eye damage.

Hazard Pictogram(s)



Hazard Ratings

	NFPA
Health	3
Flammability	0
Reactivity	0
PPE	N/A

Precautionary Statement(s)

P280 – Wear protective gloves/protective clothing/ eye protection/face protection.
 P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
 P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
 P360 – Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
 P503 – This material must be handled as a hazardous waste.

Skin Contact May cause skin burns.
Eye Contact May cause eye damage.
Inhalation May cause respiratory irritation.
Ingestion May be toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENT

Chemical Name/Pure Substance	CAS #	Weight-%
Sulfamic Acid	5329-14-6	100

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

General Advice First aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

Eye Contact If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. Minimum flushing is for 15 minutes. Seek immediate medical attention.

Skin Contact If the product contaminates the skin, immediately begin decontamination with running water. Minimum flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

Inhalation After high vapor exposure, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITTING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

Most important symptoms and effects

Symptoms Significant pain in the burn region.

Medical attention A supervision of the acid-basic balance and the calcium rate in the serum of the blood is necessary.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical, foam, carbon dioxide, or water fog.

Unsuitable Extinguishing Media: Not available.

Specific Hazards Arising from the Chemical

Explosion hazard Reacts with most metals producing hydrogen which is extremely flammable and may explode. Applying to hot surfaces requires special precautions. Closed containers may explode if exposed to extreme heat.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) operated in positive pressure mode and full protective gear. Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Keep public away from danger area. Proper personal protective equipment should be worn.

Environmental precautions Prevent entry to sewers, soils, and natural waters. Notify authorities if product enters sewers or public waters.

Methods and material for containment and clean up

Methods for Containment Prevent further leakage or spillage if safe to do so. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material.

Methods for Clean up Neutralize spilled material with sodium carbonate solution then absorb with non-combustible material such as sand, soil, or vermiculite. Shovel up and place all spill residues in suitable containers. Dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe dust. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Remove contaminated clothing and shoes. Wash clothing before re-using. Packaging, even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packaging as if they were full. Avoid all contact with this substance. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in a dry, cool, well-ventilated area. Keep away from food, drink, and animal feeding stuffs. Keep container tightly closed and upright when not in use to prevent leakage.

Incompatible Materials Reacts with most metals producing hydrogen which is extremely flammable and may explode. Keep away from strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfamic Acid (5329-14-6)	None Known	None Known	N/A

Appropriate engineering controls

Engineering Controls Monitor the atmosphere at regular intervals. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear approved safety glasses with side shields or splash goggles.

Skin and Body Protection Wear appropriate protective clothing and chemical resistant gloves.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. Approved dust respirator should be used if airborne particles are generated when handling this material.

General Hygiene Considerations Do not eat, drink, or smoke when using this product. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid release to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Solid	Odor	Odorless
Color	Opaque, White	Odor Threshold	Not Determined

Property

<u>Property</u>	<u>Values</u>	<u>Remarks - Method</u>
pH	1.1	1% solution @ 20 °C
Melting Point/Freezing Point	205 °C/ 408 °F	
Boiling Point/Boiling Range	Decomposes @ 209 °C/ 408 °F	
Flash Point	Not flammable	
Evaporation Rate	Not available	
Flammability (Solid, Gas)	Not flammable	
Upper Flammability Limits	9.3	
Lower Flammability Limits	9.3	
Vapor Pressure	0.0	
Vapor Density	Not available	
Specific Gravity	2.13	
Water Solubility	14.7 @ 0 °C/ 32 °F	
Solubility in other solvents	Not available	
Partition Coefficient	Not available	
Auto-ignition Temperature	Not flammable	
Decomposition Temperature	209 °C/ 408 °F	
Viscosity	Not applicable	
Explosive Properties	Not applicable	
Oxidizing Properties	Not available	

10. STABILITY AND REACTIVITY

Reactivity Not reactive under normal conditions.

Chemical Stability Stable under recommended storage conditions.

Conditions to Avoid Isolate from alkalis. Avoid dispersion of sulfamic acid particulates into the air and contact with heat.

Laundry Sour**F-420****Revision Date: February 25, 2016****Incompatible materials**

Bases, amines, chlorine, fuming nitric acid, cyanides, sulfides, nitrites, nitrates, carbonates, metal oxides, strong oxidizing agents, and strong bases.

Hazardous Decomposition Products

Nitrogen oxides, carbon oxides, sulfur oxides, and ammonia gas.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Component	Oral LD50	Inhalation LC50	Dermal LD50
Sulfamic Acid (5329-14-6)	3160 mg/kg (Rat) 1312 mg/kg (Mouse) 1050 mg/kg (Guinea Pig)	N/A	500 mg/24 hours (adult): Rabbit skin 20 mg (adult): Rabbit eye

Information on likely routes of exposure**Eye contact**

Severe burns to eyes, redness, tearing, and blurred vision.

Skin contact

Severe burns to skin, defatting, and dermatitis.

Ingestion

Harmful or fatal if swallowed. Ingestion can result in severe gastric distress with possible circulatory collapse, kidney failure, and liver and heart damage. Vapor harmful. Respiratory irritant, nose irritation, sore throat, coughing, and chest tightness and possibly, ulceration and perforation of the nasal sapum. High levels of exposure could cause pulmonary edema (buildup of fluid in lungs) which could result in death.

Inhalation**Symptoms related to the physical, chemical, and toxicological characteristics**

Not available.

Carcinogenicity

Not reported to be cancer causing in humans.

Reproductive toxicity

Not reported to cause reproductive effects in humans.

Toxicological information

Toxic if swallowed, in contact with skin, or if inhaled.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Component	LC50 Fathead Minnow	EC50 Daphnia	ErC50 Algae
Sulfamic Acid (5329-14-6)	58.8-84 mg/L (96 hours, fresh water, 22°C)	N/A	N/A

Persistence and degradability

Completely Biodegradable.

Bioaccumulative potential

Not determined.

Other adverse effects

None known based on information provided.

13. DISPOSAL CONSIDERATIONS**Disposal Instructions**

Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local/ national regulations.

Hazardous Waste Code

This should be assigned between the producer, user, and the waste disposal company.

Waste from residues / unused products

This material should be disposed of to an approved waste disposal site.

Contaminated Packaging

Empty packaging can have residues or dusts and are subject to proper waste disposal.

14. TRANSPORT INFORMATION

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
DOT I.D. Number	UN2967
DOT Proper Shipping Name	Sulfamic Acid
DOT Hazard Classes:	
US DOT	8
Road (ADR)	8
Air (ICAO/IMDG)	8
Sea (IMO/IMDG)	8
Packing Group	III
DOT Label	Corrosive

15. REGULATORY INFORMATION

U.S. Federal Regulations

Contents of this SDS comply with OSHA Hazard Communication Standard CFR 1910.1200.

OSHA Hazard Communication Standard (29 CFR 1910.1200)

(X) Hazardous () Non- Hazardous

SARA TITLE III

Section 302/304

Extremely Hazardous Substances: N/A

Section 311/312

(40CFR370) Hazardous Categories: Acute and Chronic.

Section 313

Contains the following SARA 313 Toxic Release Chemicals: None.

CERCLA

CERCLA Regulatory

Not regulated

State Regulations

California Prop 65

This product may contain the following ingredient(s) known to the state of California to cause cancer, birth defects or other reproductive harm: None based on information provided.

International Inventories

Components are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIOIC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI, USA (TSCA).

16. OTHER INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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