



# Safety Data Sheet

Issue Date: 09-May-1995

Revision Date: 15-Jul-2014

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Names:** Season Start  
Imperial Scale Remover

### Other means of identification

**Part Number** 4360-88, 4360-84

### Recommended use of the chemical and restrictions on use

**Recommended Use** Scale remover.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Nu-Calgon  
2008 Altom Court  
Saint Louis, MO 63146  
www.nucalgon.com

### Emergency Telephone Number

**Company Phone Number** (314) 469-7000  
**Emergency Telephone (24 hr)** (800) 554-5499  
Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Appearance** Purple flowing granules

**Physical State** Solid

**Odor** Pungent

### Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

### Signal Word

**Danger**

### Hazard Statements

Harmful if swallowed  
Causes severe skin burns and eye damage



**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

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 or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a poison center or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do not induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Harmful to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sulfamic acid	5329-14-6	96

\*\*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

**First Aid Measures**

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if irritation occurs.
<b>Inhalation</b>	Remove to fresh air. Call a physician immediately.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. Give large quantities of water. Give at least one ounce of milk of magnesia or aluminum hydroxide gel in equal amounts of water. If not available, the whites of 2-3 eggs may be used. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

**Most important symptoms and effects**

<b>Symptoms</b>	May cause eye burns and permanent eye damage. Prolonged contact may even cause severe skin irritation or mild burn. Irritation and corrosive burns to mouth, throat, and stomach.
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**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Water. Chemical foam. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Combustion products may be toxic.

**Hazardous Combustion Products** Oxides of sulfur. Ammonia.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Neutralize with suitable material, such as slaked lime or sodium bicarbonate. Flush area with water.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Observe precautions found on the label.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store away from incompatible materials.

**Incompatible Materials** Alkali. Chlorine sources.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Trade Secret	TWA: 5 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 5 mg/m <sup>3</sup> not in effect as a result of reconsideration	TWA: 5 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Chemical safety goggles/faceshield.

**Skin and Body Protection** Rubber gloves.

**Respiratory Protection** Use NIOSH approved mechanical filter respirator when dust levels exceed applicable exposure limits.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical State</b>	Solid	<b>Odor</b>	Pungent
<b>Appearance</b>	Purple flowing granules	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Purple		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1.25	(1% solution)
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not available	
Flash Point	Not applicable	
Evaporation Rate	Not applicable	
Flammability (Solid, Gas)	Not flammable	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	Not applicable	
Vapor Density	Not applicable	
Specific Gravity	Not available	
Water Solubility	Appreciable	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible Materials**

Alkali. Chlorine sources.

**Hazardous Decomposition Products**

Sulfur oxides. Ammonia.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Eye Contact** Causes severe eye damage.

**Skin Contact** Causes severe skin burns.

**Inhalation** Avoid inhalation of dust.

**Ingestion** Harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sulfamic acid 5329-14-6	= 1450 mg/kg ( Rat )	-	-
Trade Secret	= 7340 mg/kg ( Rat )	-	-

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity**

Not determined

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sulfamic acid 5329-14-6		14.2: 96 h Pimephales promelas mg/L LC50 static		

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION

**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Season Start (4360-88) is classified as a "Limited Quantity" in accordance with DOT regulation 49CFR173.154.

**DOT**

<b>UN/ID No</b>	UN2967
<b>Proper Shipping Name</b>	Sulfamic Acid, 8, UN2967, PG III
<b>Hazard Class</b>	8
<b>Packaging Group</b>	III

**IATA**

<b>UN/ID No</b>	UN2967
<b>Proper Shipping Name</b>	Sulfamic Acid, 8, UN2967, PG III
<b>Hazard Class</b>	8
<b>Packaging Group</b>	III

**IMDG**

<b>UN/ID No</b>	UN2967
<b>Proper Shipping Name</b>	Sulfamic Acid, 8, UN2967, PG III
<b>Hazard Class</b>	8
<b>Packaging Group</b>	III

## 15. REGULATORY INFORMATION

### International Inventories

Not determined

### US Federal Regulations

#### SARA 313

Not determined

### US State Regulations

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfamic acid 5329-14-6	X		
Trade Secret	X	X	X

## 16. OTHER INFORMATION

### NFPA

#### Health Hazards

3

#### Flammability

0

#### Instability

1

#### Special Hazards

Not determined

### HMIS

#### Health Hazards

3

#### Flammability

0

#### Physical Hazards

1

#### Personal Protection

Not determined

Issue Date: 09-May-1995  
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 Revision Note: New format

### 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 a 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.

**End of Safety Data Sheet**