



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
2611 Schuetz Road
Saint Louis, MO 63043
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

| | |
|---------------------|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately. |
| Skin Contact | 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. |
| Inhalation | Remove to fresh air. Call a physician immediately. |
| Ingestion | 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

| | |
|-----------------|---|
| Symptoms | 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. |
|-----------------|---|

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 (CO₂).

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 ³ | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ not in effect as a result of reconsideration | TWA: 5 mg/m ³ |

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

| | | | |
|-----------------------|-------------------------|-----------------------|----------------|
| Physical State | Solid | Odor | Pungent |
| Appearance | Purple flowing granules | Odor Threshold | Not determined |
| Color | 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

| | |
|-----------------------------|----------------------------------|
| UN/ID No | UN2967 |
| Proper Shipping Name | Sulfamic Acid, 8, UN2967, PG III |
| Hazard Class | 8 |
| Packaging Group | III |

IATA

| | |
|-----------------------------|----------------------------------|
| UN/ID No | UN2967 |
| Proper Shipping Name | Sulfamic Acid, 8, UN2967, PG III |
| Hazard Class | 8 |
| Packaging Group | III |

IMDG

| | |
|-----------------------------|----------------------------------|
| UN/ID No | UN2967 |
| Proper Shipping Name | Sulfamic Acid, 8, UN2967, PG III |
| Hazard Class | 8 |
| Packaging Group | 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

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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