Section 1. Product and Company Identification

Product Name: Azelaic Acid
CAS Number: 123-99-9

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 (914) 654-6899
parchem.com info@parchem.com

Section 2. Hazards Identification

Classification of the substance or mixture
OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture: Combustible Dusts
Serious Eye Damage/Eye Irritation - Category 2B
Skin Corrosion/Irritation - Category 2B

GHS Label Elements
Pictograms:

Signal word: WARNING

Hazard and precautionary statements
Hazard Statements
May form combustible dust concentrations in air. Causes eye irritation. Causes skin irritation

Precautionary Statements
General
Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention
Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.

**Supplemental label elements:** Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

**Hazards not otherwise classified:** Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose, and throat.

### Section 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Common Name</th>
<th>CAS Number</th>
<th>CONCENTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azelaic Acid (C9)</td>
<td>123-99-9</td>
<td>88 – 92%</td>
</tr>
<tr>
<td>Undecanedioic Acid (C11)</td>
<td>1852-04-6</td>
<td>2.5 – 4%</td>
</tr>
<tr>
<td>Suberic Acid (Octanedioic Acid, C8)</td>
<td>505-48-6</td>
<td>3.5 – 4.2%</td>
</tr>
<tr>
<td>Sebacic Acid (Decanedioic Acid, C10)</td>
<td>111-20-6</td>
<td>2.6 – 3.3%</td>
</tr>
</tbody>
</table>

### Section 4. First Aid Measures

**Description of necessary First-aid Measures**

**Eye Contact:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. 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.

**Skin Contact:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion:** Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. 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.
Most important symptoms/effects, acute, and delayed

Potential Acute Health Effects

Eye contact: Causes eye irritation

Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin Contact: No known significant effects or critical hazards.

Ingestion: May be irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye Contact: Adverse symptoms may include the following: irritation; watering; redness

Inhalation: Adverse symptoms may include the following: respiratory tract irritation; coughing

Skin Contact: No specific data

Ingestion: No specific data

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific to Treatments: No specific treatment

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use dry chemical powder

Unsuitable extinguishing media: Do not use water jet

Specific hazards arising from the chemical: Fine dust clouds may form explosive mixtures with air.

Hazardous thermal decomposition products: Decomposition products may include the following materials: Carbon dioxide; Carbon monoxide

Special protective actions for firefighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For nonemergency personnel”.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: See Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls / Personal Protection

Control parameters

Occupational exposure limits: None.

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment by a qualified industrial hygienist indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment by a qualified industrial hygienist indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and Chemical Properties

Appearance: Solid. [Flakes.]
Color: White
Odor: Mild of fatty acid
Melting point: 101 - 102°C (213.8 - 215.6°F)
Boiling point: > 260°C (>500°C)
Flash point (Cleveland Open Cup): 215°C (419°F)
Vapor pressure: < 0.13 kPa (< 1 mm Hg) [room temperature]
Solubility: Very slightly soluble in the following materials: cold water

Section 10. Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Information on Toxicological Effects

Acute Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azelaic acid</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt; 5 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>
### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/Ingredient Name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azelaic Acid</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>3 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg 24hrs</td>
<td>-</td>
</tr>
<tr>
<td>Undecanedioic Acid</td>
<td>Eyes - Edema of the conjunctivae</td>
<td>Rabbit</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Edema</td>
<td>Rabbit</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Information on the likely routes of exposure:** Routes of entry anticipated: Dermal, Inhalation

**General:** Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Numerical Measures of Toxicity**

**Acute Toxicity Estimates:** Not available.

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### Section 12. Ecological Information

**Azelaic Acid**

**Acute LC50 - Fish:** > 100 mg/L (96 hours)

**Persistence and Degradability:** Not available.

### Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Log Pow</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azelaic acid (C9)</td>
<td>1.57</td>
<td>3</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Other Adverse Effects:** No known significant effects or critical hazards.

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### Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

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### Section 14. Transport Information

**DOT Classification:** Not Regulated

**TOG Classification:** Not Regulated

**Mexico Classification:** Not Regulated

**IMDG:** Not Regulated

**IATA:** Not Regulated

**Environmental Hazard:** No
Additional Information:

Special Precautions for User: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory Information

U.S. Federal Regulations: United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304

Composition/information on ingredients: No products were found.
SARA 304 RQ: Not applicable.
SARA 311/312: Fire hazard; Immediate (acute) health hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire Hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazards</th>
<th>Delayed (Chronic) health hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undecanedioic Acid (C11)</td>
<td>2.4 - 4%</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Azelaic Acid (C9)</td>
<td>88 - 90%</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

State Regulations
Massachusetts: None of the components are listed
New York: None of the components are listed
New Jersey: None of the components are listed
Pennsylvania: None of the components are listed

Canadian Regulations
Canada Inventory: All components are listed or exempted
WHMIS (Canada): Not controlled under WHMIS (Canada)

Canadian lists
CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.
International Lists
National Inventory
Australia: All components are listed or exempted
China: All components are listed or exempted
Europe: All components are listed or exempted
Japan: All components are listed or exempted
New Zealand: All components are listed or exempted
Philippines: All components are listed or exempted
Republic of Korea: All components are listed or exempted

HMIS Rating
Health: 2
Flammability: 1
Reactivity: 0

NFPA Rating
Health: 2
Flammability: 1
Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 1/26/2018