1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name
Chlorinated Powdered Bleach

Other Means of Identification
Product Code
498

Recommended Use of the Chemical and Restrictions on Use
Recommended Use
Bleach, Stain Remover, Laundry Aid

Details of the Supplier of the Safety Data Sheet
Manufacturer Address
Arrow Chemical Products, Inc.
2067 Sainte Anne St.
Detroit, MI 48216

Emergency Telephone Number
Company Phone Number
313-237-0277
Emergency Telephone
INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity – Inhalation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin Corrosion / Irritation</td>
<td>Category 1C</td>
</tr>
<tr>
<td>Serious Eye Damage / Irritation</td>
<td>Category 2 Sub-Category A</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Respiratory)</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Signal Word
DANGER

Hazard Statements
- Causes irreversible eye damage.
- May be fatal if inhaled.
- May cause skin irritation.
- May cause respiratory tract irritation.
- Harmful if swallowed. May cause burns to moist skin if not promptly removed.
Appearance  White Powder  Physical State  Solid

**Precautionary Statements - Prevention**
Do not breathe dust, vapor, or spray mist. Do not get in eyes, on skin, or on clothing. Do not eat, drink, or smoke while using this product. Wear safety glasses with side shields, protective clothing, chemical splash goggles, full face shield, and chemical resistant gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. Use only outdoors in a well-ventilated area. Avoid release to the environment.

**Precautionary Statements – Response**
**IF INHALED:** Move to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (cardio-pulmonary resuscitation and/or automatic external defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.
**IF ON SKIN:** Immediately flush contaminated area with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before reuse. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.
**IF IN EYES:** Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. GET MEDICAL ATTENTION IMMEDIATELY.
**IF INGESTED:** Never give anything by mouth to an unconscious or convulsive person. Rinse mouth, do not induce vomiting. If vomiting occurs spontaneously, keep airway clear. Give water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

**Precautionary Statements - Storage**
Store in a well-ventilated place inaccessible to children. Keep material dry and store in a dry area. Keep container tightly closed. Keep separated from incompatible substances. Store in a secure manner.

**Precautionary Statements - Disposal**
Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dichloroisocyanurate</td>
<td>51580-86-0</td>
<td>&lt;25%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**First Aid Measures**

**Inhalation**
Move to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, give artificial respiration. Keep head below knees. Seek medical attention immediately.

**Eye Contact**
Object is to flush material out immediately then seek medical attention. Immediately flush eyes with large amounts of water to complete irrigation of all eye and lid tissue. Washing eyes within one minute is essential to achieve maximum effectiveness.

**Ingestion**
Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Drink a large quantity of water (if available, give several glasses of milk). If vomiting occurs spontaneously, keep airways clear. Get immediate medical attention.

**Skin Contact**
Immediately brush off excess chemical and flush affected area with running water for at least 15 minutes. If irritation occurs, get immediate medical attention.
ACP-498 – Chlorinated Powdered Bleach

**Most Important Symptoms and Effects, both Acute and Delayed**

**Symptoms**
- Contact with skin may cause redness, strong burning sensation, with eventual ulceration.
- Contact with eyes may cause pain and tears. Impaired vision. Ingestion may cause abdominal pain, nausea, general weakness. Inhalation may cause sore throat, cough, and nausea.

**Indication of any Immediate Medical Attention and Special Treatment Needed**

**Note to Physicians**
- Treat symptomatically.

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**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**
- Do not attempt to extinguish the fire without a self-contained breathing apparatus. Do not let the fire burn, flood with copious amounts of water.

**Unsuitable Extinguishing Media**
- Do not use ABC fire extinguishers. Do not use dry chemicals, carbon dioxide, or halogenated extinguishing agents since there is the potential of a violent reaction.

**Specific Hazards Arising from the Chemical**
- None known.

**Protective Equipment and Precautions for Firefighters**
- As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved equivalent) and full protective gear.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions**
- Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Wear protective clothing to minimize skin contact. Contaminated clothing should be removed and laundered before reuse. Wear appropriate chemical resistant gloves.

**Methods and Material for Containment and Cleaning Up**

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

**Methods for Cleaning Up**
- Shovel dry chemical into an empty, clean, dry, moisture free container with a lid. Do NOT add water to spilled material.

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**7. HANDLING AND STORAGE**

**Precautions for Safe Handling**

**Advice on Safe Handling**
- NEVER add water to this product. Always add product to large quantities of water. Do not get in eyes, on skin or clothing. Avoid breathing vapors or dust. Avoid creation of dust. Wear personal protective equipment as described in Section 8. Wash thoroughly after handling.

**Conditions for Safe Storage, Including any Incompatibilities**

**Storage Conditions**
- Store and handle in accordance with all current regulations and standards for Oxidizer Class 1. Store in original container and in a DRY area where temperatures do not exceed 52°C (125°F). Do NOT allow water to get in container. Keep container tightly closed and properly labeled. Keep separated from incompatible substances (See Section 10 of the Safety Data Sheet). KEEP OUT OF REACH OF CHILDREN.

**Incompatible Materials**
- Acids, ammonia, bases, floor sweeping compounds, urea, or similar nitrogen containing compound, calcium hypochlorite, reducing agents, organic solvents and compounds.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dichloroisocyanurate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>51580-86-0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls
Use only in well-ventilated areas. Provide local exhaust ventilation where dust or mist may be generated. Eyewash stations and safety shower should be near work area.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection
Chemical anti-splash safety goggles.

Skin and Body Protection
Wear appropriate chemical resistant gloves such as butyl rubber, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC). Wear protective clothing to minimize skin contact.

Respiratory Protection
Use only in well-ventilated areas. A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne dust is generated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>White granules</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Chlorine</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6 – 7 (1% Solution)</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
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<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not flammable</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not flammable</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
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<td></td>
</tr>
<tr>
<td>Water Solubility</td>
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<td></td>
</tr>
<tr>
<td>Solubility in Other Solvents</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Auto ignition Temperature</td>
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<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
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<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
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<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal temperatures and pressures.

Chemical Stability
Stable at normal temperatures and pressures.
Conditions to Avoid  
Do not get water inside container. Wet material may generate nitrogen trichlorite, an explosion hazard. Avoid contact with easily oxidizable organic material. Do not mix with other chemicals.

Incompatible Materials  
Acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents, and compounds.

Hazardous Decomposition Products  
Chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation  
This material in the form as sold is not expected to produce respiratory effects. Particles of respirable size are generally not encountered. The respirable fraction is typically less than 0.1% by weight for the granular and extra granular grades. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. If significant or prolonged exposure occurs, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

Eye Contact  
This material is corrosive to the eye. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.

Skin Contact  
This material is irritating to the skin. Direct contact with wet material or by moist skin may cause severe irritation, pain, and possibly burns. Dry material is less irritating than wet material. This material is not a skin sensitizer based on studies with guinea pigs.

Ingestion  
Not a likely route of exposure. Harmful if swallowed. Ingestion may cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dichloroisocyanurate 51590-86-0</td>
<td>1823 mg/kg (rat)</td>
<td>&gt;2000 mg (rabbit)</td>
<td>0.27 – 1.17 mg/L (4 hr -rat)</td>
</tr>
</tbody>
</table>

Information on Physical, Chemical and Toxicological Effects

Symptoms  
Contact with skin may cause redness, strong burning sensation, with eventual ulceration. Contact with eyes may cause pain and tears. Impaired vision. Ingestion may cause abdominal pain, nausea, general weakness. Inhalation may cause sore throat, cough, and nausea.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity  
Not classified as a carcinogen by NTP, IARC or OSHA
12. ECOLOGICAL INFORMATION

Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dichloroisocyanurate</td>
<td>-</td>
<td>96 hour: 0.22 mg/L LC50</td>
<td>-</td>
<td>48 hour: 0.2 mg/L LC50</td>
</tr>
<tr>
<td>51580-86-0</td>
<td></td>
<td>Fish (Rainbow Trout)</td>
<td></td>
<td>Daphnia Magna</td>
</tr>
<tr>
<td></td>
<td></td>
<td>96 hour: 0.28 mg/L LC50</td>
<td></td>
<td>96 hour: 1.65 mg/L LC50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish (Bluegill Sunfish)</td>
<td></td>
<td>Mycid Shrimp</td>
</tr>
</tbody>
</table>

Persistence and Degradability
This material is believed not to persist in the environment. Free available chlorine is rapidly consumed by reaction with organic and inorganic materials to produce chloride ion. The stable degradation products are chloride iron and cyanuric acid.

Bioaccumulation
This material hydrolyses in water liberating free available chlorine and cyanuric acid. These products are not bioaccumulative.

Other Ecological Information
This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of appropriate regulatory requirements. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Wastes must be disposed of in accordance with federal, state and local environment control regulations.

Contaminated Packaging: Wastes must be disposed of in accordance with federal, state and local environment control regulations.

14. TRANSPORT INFORMATION

Note: Land Transport

DOT: U.S. DOT 49 CFR 172.101
Status: Non-Bulk Packaging: Not regulated unless transported by vessel.

UN/ID No: Not regulated

IMDG
Status: Shipment by Vessel: Regulated

UN/ID No: UN3077

Proper Shipping Name: Environmentally Hazardous Substance, Solid, n.o.s. (Sodium dichloroisocyanurate dihydrate), Marine Pollutant

Hazard Class: 9
Packing Group: III

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>DSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
US Federal Regulations

SARA 313
Not regulated.

US State Regulations

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Dichloroisocyanurate</td>
<td>-</td>
<td>X</td>
<td>X</td>
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16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>Not determined</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>B</td>
</tr>
</tbody>
</table>

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