

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chlorine Bleaching Powder

Product Number: 9582

Manufacturer: Arcot Manufacturing Corporation, 2950 Mowery Road, Houston, Texas, U.S.A. 77045

Emergency Response Telephone: 1-800-633-8253 (Account #9390)

Arcot Customer Service Telephone: 713-413-9700

Website: www.ArcotManufacturing.com

Recommended Use: bleaching powder, mainly for white towels and fabrics for laundry applications or for cleaning and bleaching hard, nonporous surfaces

Restrictions On Use: Do not use on sensitive surfaces. Do not use on dyed or sensitive fabrics. Do not mix with other chemicals. Do not use or mix with other bleaches.

2. HAZARDS IDENTIFICATION

Hazard Classification:

Physical hazards: Oxidizing solids - Category 2

Health hazards: Acute toxicity, oral - Category 4

Acute toxicity, inhalation - Category 2

Skin corrosion/irritation - Category 1C

Eye damage/ irritation - Category 1

Specific target organ toxicity, single exposure - Category 3 (respiratory tract irritation)

Environmental hazards: Not classified.

OSHA defined hazards: Not classified.

Label elements:



Signal word: **Danger**

Hazard Statements:

May intensify fire; oxidizer.

Harmful if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause respiratory irritation.

Precautionary statements:

Prevention:

Keep away from heat. Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles.

Do not breathe dust, gas or vapors. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation, wear respiratory protection. Wear protective gloves, protective clothing and eye protection or face protection.

Response:

In case of fire: Use water to extinguish. Flood with water.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see this SDS and the label).

If swallowed: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.

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.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:

P501: Dispose of contents and container to an approved waste disposal plant in accordance with applicable local, state, federal and international regulations.

Hazard(s) not otherwise classified (HNOC):

Damp or wet material may generate nitrogen trichloride, an explosion hazard.
Contact with acids liberates toxic gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS #	Concentration
Sodium dichloroisocyanurate dihydrate	51580-86-0	proprietary
Other ingredients are nonhazardous and/or considered trade secrets. However, all hazardous aspects of the ingredients and of this mixture are considered and included. The exact percentage of composition has been withheld as a trade secret. This SDS is used for a group of substantially similar mixtures.		

4. FIRST-AID MEASURES

Inhalation: If inhaled: Move the person toward a source to fresh air. If the person is not breathing, call 911 or an ambulance, then apply artificial respiration, preferably on mouth to mouth, if possible. Call a poison control center or a doctor for advice on treatment.

Skin contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: If in eyes, hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Acute Symptoms/Effects: Listed below.

Eyes: Serious Eye Damage. Exposure to the eyes may cause irritation and burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of the eyes.

Skin: Skin Corrosion. Exposure to the solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns to the skin.

Inhalation (Breathing): Respiratory System Effects: Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngeospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema to the user. The pulmonary edema may develop several hours after a severe acute exposure.

Ingestion (Swallowing): Gastrointestinal Effects: Exposure by ingestion may cause irritation, nausea, and vomiting. May cause local tissue damage to esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding.

Delayed Symptoms/Effects: Repeated and prolonged skin contact with the product may cause a dermatitis.

Indication of immediate medical attention and special treatment needed:

Probable mucosal damage may contraindicate the use of gastric lavage.

Treat this product as a corrosive substance. This material is more irritating to the skin and eyes in the presence of water. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no antidote available. Cyanuric acid is readily removed from the body via the renal system, and is not bio-accumulated. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation when treating the victim.

General information:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Flood with water.

Unsuitable extinguishing media: Dry chemical. Carbon dioxide (CO₂) Do not use halogenated extinguishing agents or foam. Do not use ABC fire extinguishers.

Specific hazards arising from the chemical: May intensify fire; oxidizer.

Special protective equipment and precautions for firefighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions: Consider evacuation of personnel located downwind of fire. Keep unnecessary people away from the fire, isolate hazard area and deny entry. Move the container from fire area if

it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode if available. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. DO NOT attempt to reseal the contaminated drums. Damp material should be neutralized to a non-oxidizing state by using proper methods. Confirm with manufacturer before proceeding. Contact manufacturer for instructions for handling and disposal of damp material.

Specific methods: Cool containers exposed to flames with water until well after the fire is out.

General fire hazards: Negligible fire hazard. If heated by an outside source to temperatures above 240°C (464°F), this product will undergo decomposition with the evolution of noxious gases but no visible flame. Wet material may generate nitrogen trichloride which is an explosion hazard.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate the hazard area and deny entry. Do not get in eyes, on skin or on clothing. Do not breathe dust, fumes, gas, mists, vapors, or spray. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Minimize dust generation and accumulation. DO NOT add water to the spilled material. DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop the spilled material into clean, dedicated equipment. Avoid mixing spilled material with other chemicals or debris when cleaning up. DO NOT attempt to reseal the contaminated drums. DO NOT transport wet or damp product. Damp material should be neutralized to a non-oxidizing state under the instruction from the manufacturer. Contact the manufacturer for instructions for handling and disposal of damp material. For waste disposal, see section 13 of the SDS.

Environmental precautions: Very toxic to aquatic life. Toxic to aquatic life with long-lasting effects. Keep out of waterways.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Do not breathe dust. Minimize dust generation and accumulation. Wash hands thoroughly after handling. Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities: Do not contaminate water, food or feed by storage and disposal. Store in a cool, dry, well-ventilated place. Keep away from heat, open flames or other sources of ignition. Store in a cool dry place inaccessible to children and pets.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits: No exposure limits noted for ingredient(s).

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Eye wash facilities and emergency shower must be available when handling this product. Provide eyewash station.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Chemical splash goggles. Eye wash fountain is recommended.

Skin protection:

Hand protection: Wear appropriate chemical resistant gloves. Butyl rubber. Natural rubber. Neoprene gloves. Nitrile rubber. Polyvinyl chloride (PVC). Tyvek®.

Other: Wear appropriate chemical resistant clothing.

Respiratory protection: Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Wear respirator with dust filter.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands after handling and before eating.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Granular solid
Physical state	Solid.
Form	Granules / Powder
Color	White
Odor	Chlorine
Odor threshold	Not available.
pH	6 - 7 @ 25°C (1% solution)
Melting point/freezing point	Decomposes without melting @ 252°C
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits:	
Flammability limit – lower (%)	Not available.
Flammability limit – upper (%)	Not available.
Explosive limit – lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	approximately 2 g/ml @ 25°C
Solubility in water	approximately 26 g/100 g of water @ 25°C
Auto-ignition temperature	Not available.
Decomposition temperature	approximately 486°F (252°C), Dehydrates @104-212°F
Viscosity	Not available.
Other information:	
Bulk density	approximately 60 Lb/ft ³ (loose)
Molecular formula	Mixture
Molecular weight	Mixture

10. STABILITY AND REACTIVITY

Reactivity: Reacts with acids. Ammonia. Floor sweeping compounds. Bases. Calcium hypochlorite. Strong reducing agents. Organic solvents. Organic materials.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Chemical stability: Material is stable under normal conditions.

Conditions to avoid: Never add water to product. Always add product to large quantities of water. Use only clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic material or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases and possible fire or explosion. Avoid contact with flaming or burning material, such as lighted cigarette. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well-ventilated area and flood with large amounts of water.

Incompatible materials: Strong oxidizing agents. Acids. Caustics. Reducing agents.

Hazardous decomposition products: May include and are not limited to: Nitrogen trichloride. Hydrogen chloride. Chlorine gas. Oxides of nitrogen. Cyanogen chloride. Oxides of carbon. Phosgene.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: Harmful if swallowed. May cause irritation, nausea, and vomiting. May cause local tissue damage to epiglottis, mucus membranes of the mouth, esophagus and stomach such as burning, inflammation, local ulceration, and may cause gastrointestinal bleeding if ingested.

Inhalation: Fatal if inhaled. This material in the form is not expected to produce respiratory effects. Particles of respirable size are generally not encountered in this form. 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 to the user. Exposure to the solid product or to free chlorine evolving from the product may cause irritation, redness of upper and lower airways, coughing, laryngospasm and edema, shortness of breath, bronchoconstriction, and possible pulmonary edema. The pulmonary edema may develop several hours after a severe acute exposure to the product.

Skin contact: Causes severe skin burns. Severe Irritation, Corrosive (rabbit, 24 hr). Exposure to the solid along with moisture may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns. Dry material may be less irritating than wet material.

Eye contact: Causes serious eye damage. Severe Irritation, Corrosive (rabbit, 24 hr). May cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to the internal contents of eyes.

Symptoms related to the physical, chemical and toxicological characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity: Fatal if inhaled. Harmful if swallowed. May cause respiratory irritation.

Components	Species	Test Results
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)		
Acute		
Dermal LD 50	Rabbit	> 3160 mg/kg > 2000 mg/kg 11000 mg/kg
Inhalation LC50	Rat	> 1637.5 mg/m ³ /4H > 1481 mg/m ³ , 4 hours > 847.5 mg/m ³ , 4 hours
Oral LD50	Rat	1670 mg/kg 1420 mg/kg 620 mg/kg

Skin corrosion/irritation: Causes severe skin burns and eye damage in presence of moisture.

Exposure minutes Not available.
Erythema value Not available.
Oedema value Not available.

Serious eye damage/eye irritation: Causes serious eye damage in presence of moisture.

Corneal opacity value Not available.
Iris lesion value Not available.
Conjunctival reddening value Not available.
Conjunctival oedema value Not available.
Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.
Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Respiratory tract irritation.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not available.

Chronic effects: Not available.

Further information: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity			
Components		Species	Test Results
Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.15 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.29 mg/l, 96 hours

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Not available.

Mobility in soil: No data available.

Mobility in general: Not available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/ international regulations. Do not place product, spilled product, or filled or partially filled containers into the trash or waste compactor. DO NOT transport wet or damp waste material. Damp material should be neutralized to a non-oxidizing state. Contact the manufacturer for instructions for handling and disposal of damp material.

Wastes are acutely hazardous. Improper disposal of excess, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer empty container for recycling.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT (U.S.): UN1479, Oxidizing solid, n.o.s. (contains Dichloroisocyanuric acid, dry), 5.1, PGII.

Ground transport only. Do not ship via air.

15. REGULATORY INFORMATION

U.S. federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

DANGER. Keep out of reach of children.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories:	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - Yes
SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting)	Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

Food and Drug Administration (FDA): Not regulated.

U.S. state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

U.S. - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

U.S. - New Jersey RTK - Substances: Listed substance	Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)	Listed.
U.S. - Massachusetts RTK - Substance List	Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)	Listed.
U.S. - Pennsylvania RTK - Hazardous Substances	Sodium dichloroisocyanurate dihydrate (CAS 51580-86-0)	Listed.
U.S. - Rhode Island RTK	Not regulated.	

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

* A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. OTHER INFORMATION

HMIS Ratings: Health = 3 Fire = 0 Physical Hazard = 1

NFPA Ratings: Health = 2 Fire = 0 Reactivity = 1

HMIS & NFPA ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

Legend: 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal

Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstract Service

GHS = Globally Harmonized System

HCS = Hazard Communication Standard

NIOSH = National Institute for Occupational Safety & Health

PEL = Permissible Exposure Limit

RTECS = Registry of Toxic Effects of Chemical Substances

STEL = Short Term Exposure Limit

TLV = Threshold Limit Values

TWA = Time Weighted Average limit or ceilings (C) (exposure limit)

DISCLAIMER: The information contained herein is based upon data obtained from sources believed to be reliable and reflects our best professional judgment. Since it is impossible to anticipate all of the conditions under which our products may be used, we do not guarantee that the recommendations will be adequate for all individuals and situations. Each user of this product should determine the suitability of the product for his or her particular purpose and should comply with all federal, state and local regulations. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. We shall not be held liable for any damage resulting from handling or from contact with the above product or from improper use of our products. We do not provide any warranties, expressed or implied, and do not assume any responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. We update SDS and labels on a regular basis. Please do not hesitate to contact us for current information.

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