

**Product Name:** FROG® Jump Start  
**Revision Date:** July 15, 2011  
**Supersedes:** New Product

**Revision:** 0

### 1. Identification of the substance and company

**Chemical Name:** Sodium dichloroisocyanurate  
**Synonym(s):** NaDCCA Dichlor; Sodium dichloro-s-triazinetriene  
**Chemical Formula:** C<sub>3</sub> Cl<sub>2</sub> N<sub>3</sub> O<sub>3</sub>,Na  
**Chemical Family:** Chloroisocyanurate  
**Type of product:** Swimming pools, spas, hot tubs disinfectant; spa and hot tub shock  
**Supplier:** King Technology, Inc  
530 11<sup>th</sup> Ave S, Hopkins, MN 55343, USA  
Phone (952) 933-6118  
**Emergency Telephone:** Chemtrec (800) 424-9300

### 2. Composition / information on ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
Sodium dichloroisocyanurate 2893-78-9	33.3	Not Established	Not Established
Citric acid 77-92-9	35.5	10 mg/m3 total dust	15 mg/m3 total dust
Inerts	31.2		

### 3. Hazards identification

**Emergency overview:**

- White granules
- Oxidizer
- Corrosive
- Causes irreversible eye damage and skin burns
- May cause respiratory tract irritation
- Harmful if swallowed or absorbed through the skin

**Potential environmental effects:** Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

**Potential Health Effects:**

– **Eye Contact:** Severely irritating to the eyes and may cause burns and irreversible damage.

– **Skin Contact:** Contact with the skin or mucous membranes may cause irritation or burns.

– **Inhalation:** Inhalation of dusts of this product may cause irritation or burns to the nasal passages and respiratory tract.

– **Ingestion:** This product will cause irritation to the throat, esophagus, and gastrointestinal tract if swallowed.

**NFPA Ratings (scale 0-4):** Health = 3, Fire = 1, Reactivity = 0, PPE = F  
Special Hazard Warning: OXIDIZER



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**HMIS Ratings (scale 0-4):** Health = 3, Fire = 1, Reactivity = 0  
**Carcinogenicity:** None of the components present in this material are listed by IARC or NTP as a carcinogen.

**Reproductive Effects:** None known

#### 4. First-aid measures

**Eye contact:** Hold eye 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 the eye. Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If irritation persists, call a doctor for treatment advice.

**Inhalation:** Move person to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if breathing is difficult, give oxygen. Call a poison control center or doctor for further treatment advice.

**Ingestion:** Call 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Notes to physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

#### 5. Fire fighting measures

**Flash point:** Not applicable

**Auto-ignition temperature:** Not applicable

**Suitable extinguishing media:** Extinguish with large amounts of water.

**Extinguishing media NOT to be used:** For safety reasons DO NOT use dry chemical extinguisher containing ammonia compounds, dry chemicals, carbon dioxide, halogenated agents.

**Fire fighting procedure:** As in any fire, wear self-contained breathing apparatus with pressure demand (MSHA/NIOSH approved or equivalent) and full protection clothing. Use water spray to cool fire exposed containers.

**Unusual fire and explosion hazards:** When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine, and carbon monoxide.

#### 6. Accidental release measures

**Personal precautions:** For small spills in well ventilated areas wear respiratory protection and wear clothing, chemical resistant gloves, chemical resistant footwear, and chemical resistant headgear for overhead exposure.

For cleanup of large spills, or small dry spills in confined areas, wear full-face



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respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering the entire body to prevent personal contact with the material.

**Methods for cleaning up:**

If spill material is still dry, do not put water directly on this product as a gas evolution may occur. Do not contaminate spill material with any organic materials, ammonia, ammonium salts, or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container.

CAUTION: Do not use floor sweeping compounds.

### 7. Handling and storage

**Handling:**

Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

**Storage:**

Prevent formation of dust. Keep container tightly closed when not in use. Protect from atmospheric moisture and water. Store in a cool, dry, well-ventilated area from heat sources.

### 8. Exposure Controls and Personal Protection

**Engineering controls:**

Set up ventilation to effectively remove and prevent buildup of any dust generated from the handling of this product.

**Personal protective equipment:**

– **Respiratory protection:**

If ventilation is not sufficient to effectively prevent build up of dust, appropriate NIOSH/OSHA respiratory protection must be provided.

– **Hand protection:**

Wear chemical resistant gloves, such as rubber, neoprene, or nitrile.

– **Eye protection:**

Use chemical safety glasses and face shield to avoid eye contact.

– **Skin and body protection:**

Prevent contact with skin & clothing by using protective garments.

**Hygiene measures:**

Flowing water source should be available. Avoid contact with skin, eyes, and clothing. Do not inhale dust. Remove soiled or soaked clothing immediately.

### 9. Physical and chemical properties

<b>Color/Appearance:</b>	White granular mix
<b>Physical State:</b>	Solid
<b>Odor:</b>	Chlorine like bleach odor
<b>Melting point / range:</b>	Not Established
<b>Boiling point / range:</b>	Not Established
<b>Vapor pressure:</b>	Not Established
<b>Vapor density:</b>	Not Established
<b>Evaporation rate (ether = 1):</b>	Not Established

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**Solubility in water:** Not Established  
**Bulk density:** Granular (tap) 1.05 g/ml (pour) 0.958 g/ml  
**Specific gravity:** >1  
**pH:** 4.75 (25°C)  
**Decomposition temperature:** Not Established

#### 10. Stability and reactivity

**Chemical stability:** Stable under normal conditions.

**Materials to avoid:** Organic materials; combustible materials; ammonia; ammonium compounds; Alkali. Oxidizing agents; reducing agents; acids. Strong bases, alkali metals, metallic nitrates, oxides of sulfur and potassium tartrate.

**Conditions to avoid:** Avoid conditions that favor the formation of excessive dust. Avoid excessive heat and sources of ignition. Avoid conditions of moisture.

**Hazardous decomposition products:** Nitrogen. HCl gas. Chlorine gas. Isocyanic acid. Metal oxide. Nitrogen trichloride. Carbon oxides.

**Hazardous polymerization:** Will not occur

#### 11. Toxicological information

No information available.

#### 12. Ecological information

**Adverse effects:** Toxic to fish and aquatic life forms. Do not dispose by drainage or into lakes, ponds or public water.

#### 13. Disposal considerations

**Waste disposal:** Observe all federal, state, and local regulations. The responsibility for proper waste disposal is with the owner of the waste.

#### 14. Transportation information

**US DOT:** Class: 5.1 – Oxidizing substances  
Packing Group: II  
Label: OXIDIZER (5.1)  
UN/NA number: UN2465  
Proper shipping name: Dichloroisocyanurate acid, dry, mixture

**Transport IMDG:** Class: 5.1 – Oxidizing substances  
Packing Group: II  
UN number: UN2465  
Proper shipping name: Dichloroisocyanurate acid, dry, mixture  
EmS: F-A+S-Q  
Label: OXIDIZING AGENT (5.1)  
Marine pollutant mark: Symbol “fish and tree”



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**Transport ICAO/IATA:** Class: 5.1  
Packing Group: II  
UN number: UN2465  
Proper shipping name: Dichloroisocyanurate acid, dry, mixture  
Label: OXIDIZER (5.1)

### 15. Regulatory information

#### US Federal Regulations:

–**Toxic Substances Control Act (TSCA):** Hazardous Component(s) subject to reporting on the TSCA List.

–**HMIS Classification:** Health = 3  
Flammability = 1  
Reactivity = 0  
PPE = F

–**NFPA Rating:** Health = 3  
Fire Hazard = 1  
Reactivity = 0

– **WHMIS hazard class:** Hazardous Components(s) subject to WHMIS Ingredient Disclosure

### 16. Other information

The information in this Material Safety Data Sheet should be provided to all who use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this product. Additionally, if this Material Safety Data Sheet is more than three years old you should contact King Technology to make certain that this sheet is current.

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**End of safety data sheet**