



# MATERIAL SAFETY DATA SHEET

## Product Name: Ram Blackout

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### SECTION 1 - CHEMICAL IDENTIFICATION

**CHEMICAL NAMES & SYNONYMS:** Trichloroisocyanuric acid; Trichloro-s-triazinetrione compound

**CHEMICAL FAMILY:** Chlorinated Isocyanurates

**CHEMICAL FORMULA:** 81% - C N O Cl

**TRADE NAME:** Nuclio Shock, Ortex Pool Shock and Private Label

**DESCRIPTION:** White crystalline granules having a chlorine odor.

**CAS NO.** 87-90-1

**NFPA RATINGS (SCALE 0-4):** HEALTH=2 FIRE=0 REACTIVITY=2

**HMIS RATINGS (SCALE 0-4):** HEALTH=2 FLAMMABILITY=0 REACTIVITY=2

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### SECTION 2 – HEALTH HAZARDS DATA

#### POTENTIAL HEALTH EFFECTS:

**INHALATION: SHORT TERM EXPOSURE:** irritation (possibly severe), burns, reactive airways dysfunction, cough, chest pain, difficulty breathing

**LONG TERM EXPOSURE:** not a likely route of exposure

**SKIN CONTACT: SHORT TERM EXPOSURE:** irritation (possibly severe), burns

**LONG TERM EXPOSURE:** dermatitis, rash

**EYE CONTACT: SHORT TERM EXPOSURE:** burns, eye damage, blindness

**LONG TERM EXPOSURE:** eye damage, blindness

**INGESTION: SHORT TERM EXPOSURE:** not a likely route of exposure, irritation (possibly severe), burns, central nervous system effects, coma, hypotension, tachycardia, respiratory distress

**LONG TERM EXPOSURE:** not a likely route of exposure, ulcers, behavioral changes, irritability, headache, confusion, weight loss, slurred speech, lethargy

**CARCINOGEN STATUS:** OSHA: No NTP: No IARC: No

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### SECTION 3 -FIRST AID MEASURES

**INHALATION:** If adverse effects occur, remove to uncontaminated area. 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/Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

**SKIN CONTACT:** Immediately flush contaminated areas 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.

**EYE CONTACT:** 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. GET MEDICAL ATTENTION IMMEDIATELY.

**INGESTION:** Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**MAJOR HEALTH HAZARDS:** CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. MAY CAUSE BURNS TO MOIST SKIN IF NOT PROMPTLY REMOVED. HARMFUL IF SWALLOWED.

**PHYSICAL HAZARDS:** Strong oxidizer.

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### SECTION 4 - FIRE FIGHTING MEASURES

**FIRE AND EXPLOSION HAZARDS:** Negligible fire hazard. If heated by outside source to temperatures above 240 C (464 F), this product will undergo self-sustaining decomposition with the evolution of heat and dense noxious gases but no visible flame. Wet material may generate bromine or nitrogen trichloride, an explosion hazard.

**EXTINGUISHING MEDIA:** Flood with water. Do not use dry chemicals, carbon dioxide or halogenated extinguishing agents.

**FIRE FIGHTING:** Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move 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. Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. DO NOT attempt to reseal contaminated drums. Damp material should be neutralized to a non-oxidizing state.

**SENSITIVITY TO MECHANICAL IMPACT:** Not sensitive

**SENSITIVITY TO STATIC DISCHARGE:** Not sensitive

**FLASH POINT:** Not applicable

**HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition products or combustion: chlorine, bromine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene

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**SECTION 5- ACCIDENTAL RELEASE MEASURES**

**OCCUPATIONAL RELEASE:** Spills should be cleaned up as soon as possible. Keep unnecessary people away, isolate hazard area and deny entry. DO NOT add water to spilled materials. DO NOT use floor sweeping compounds to clean up spills. Sweep and scoop spilled material into clean, dedicated equipment. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. DO NOT attempt to reseal contaminated drums. DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

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**SECTION-6 HANDLING AND STORAGE**

**STORAGE:** Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Classification 1.) Do not allow water to get in container. If liner is present, tie after each use. Keep container tightly closed and properly labeled. Store containers on pallets. Keep away from food, drink and animal feed. Keep separated from incompatible substances.

**HANDLING:** Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or dust when opening container. Avoid creation of dust. Wash thoroughly after handling. Never add water to this product. Always add product to large quantities of water. Use clean, dry utensils. Do not add the product to any dispensing device containing residuals of other products.

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**SECTION 7-EXPOSURE CONTROLS, PERSONAL PROTECTION**

**EXPOSURE LIMITS:**

**TRICHLORO-S-TRIAZINETRIONE:**

0.5 mg/m3 recommended TWA 8 hour(s) (ACL salts) (internal Occupational Exposure Limit)

1.5 mg/m3 recommended STEL 15 minute(s) (ACL salts) (internal Occupational Exposure Limit)

**CHLORINE:** 1 ppm (3 mg/m3) OSHA ceiling / 0.5 ppm (1.5 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) / 1 ppm (3 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) / 0.5 ppm ACGIH TWA / 1 ppm ACGIH STEL / 1 ppm (3 mg/m3) MEXICO TWA / 3 ppm (9 mg/m3) MEXICO STEL

**VENTILATION:** Use only in well ventilated areas. Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

**EYE PROTECTION:** Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**CLOTHING:** Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls such as Tyvek(R). Contaminated clothing should be removed and laundered before reuse.

**GLOVES:** Wear suitable gloves.

**PROTECTIVE MATERIAL TYPES:** butyl rubber, latex, natural rubber, neoprene, nitrile, polyvinyl chloride (PVC), Tyvek(R)

**RESPIRATOR:** A NIOSH approved respirator may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure.

If chlorine is present, an acid gas cartridge is also required. A half facepiece air-purifying respirator may be used in concentrations up to 10X the acceptable exposure level

and a full facepiece air-purifying respirator may be used in concentrations up to 50X the acceptable exposure level. Supplied air should be used when the level is expected to be above 50X the acceptable level, or when there is a potential for uncontrolled release.

A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

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### SECTION 8 - PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b> solid	<b>COLOR:</b> white
<b>PHYSICAL FORM:</b> granular	<b>ODOR:</b> Chlorine odor
<b>BOILING POINT:</b> Not applicable	<b>MELTING POINT:</b> Not applicable
<b>DECOMPOSITION POINT:</b> 437-446 F (225-230 C)	<b>VAPOR PRESSURE:</b> Not applicable
<b>VAPOR DENSITY:</b> Not applicable	<b>SPECIFIC GRAVITY (water=1):</b> N/A
<b>BULK DENSITY:</b> 58-68 lbs/ft3 (loose)	<b>PH:</b> 4.8-5.8 @ 25 C (1% solution)
<b>WATER SOLUBILITY:</b> 1.2 g/100 g @ 25 C	<b>VOLATILITY:</b> Not applicable
<b>ODOR THRESHOLD:</b> Not available	<b>EVAPORATION RATE:</b> Not applicable
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b> Not available	

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### SECTION - 9 STABILITY AND REACTIVITY

**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** Do not get water inside container. Wet material may generate bromine or nitrogen trichloride, an explosion hazard. Avoid contact with easily oxidizable organic material.

**INCOMPATIBILITIES:** acids, ammonia, bases, floor sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and compounds

**HAZARDOUS DECOMPOSITION:** Thermal decomposition products or combustion: chlorine, bromine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene

**POLYMERIZATION:** Will not polymerize.

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### SECTION - 10 TOXICOLOGICAL INFORMATION

**TOXICITY DATA:** Data from studies on a formulation of trichloroisocyanuric acid indicate the following: 840 mg/kg oral-rat LD50 (slightly toxic); >5000 mg/kg skin-rabbit LD50 (practically non-toxic); Eye Irritation (rabbit, 24hr) Corrosive; Skin Irritation (rabbit, 24 hr) Corrosive; DOT SKIN CORROSION: Not Corrosive (rabbit, 4 hr) This material in the form as sold is not expected to produce respiratory effects. If ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. As such, this material may cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. In some cases, 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. Depending on the concentration and duration of exposure, repeated or prolonged inhalation exposure may cause inflammatory and ulcerative changes in the upper respiratory tract. Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. This material is not considered to be a skin sensitizer based on studies with guinea pigs. Effects depend on concentration and duration of exposure. Repeated or prolonged skin contact may result in dermatitis or effects similar to acute exposure. Direct eye 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. Repeated or prolonged eye contact may result in conjunctivitis or effects as in acute exposure. 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.

**CARCINOGEN STATUS:** THIS SUBSTANCE IS NOT A KNOWN CARCINOGEN.

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**SECTION 11 ECOLOGICAL INFORMATION**

**ECOTOXICITY DATA: FISH TOXICITY:** This material is believed to be highly toxic to aquatic life. 0.26 mg/L 48 hour(s) LC50 Fathead minnow.

**INVERTEBRATE TOXICITY:** 0.93mg/L 48 hour(s) LC50 Water flea.

**ALGAL TOXICITY:** 0.2 mg/L 96 hour(s) EC50 Selenastrum capricornutum.

**FATE AND TRANSPORT: BIODEGRADATION:** This material is subject to hydrolysis. Cyanuric acid produced by hydrolysis is biodegradable.

**PERSISTENCE:** This material is believed not to persist in the environment. Hydrolysis reaction occurs in minutes. None of the hydrolysis products are bioaccumulative or persistent. Photoreactivity of free available chlorine is 30 minutes at 30 C (pH 7). Half-life increases to as much as 8 hours in the presence of Cyanuric acid.

**BIOCONCENTRATION:** This material is believed not to bioaccumulate.

**OTHER ECOLOGICAL INFORMATION:** Trichloroisocyanurate: 1.0 mg/L 96 hour(s) LC50 Inland silversides; 1.6 mg/L 96 hour(s) LC50 Mysid shrimp.

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**SECTION 12 DISPOSAL CONSIDERATIONS**

Use or reuse if possible. This material is a registered pesticide. Dispose in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction and fire. DO NOT transport wet or damp material. Damp material should be neutralized to a non-oxidizing state. See product label for container disposal information. May be subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D003.

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**SECTION 13 TRANSPORT INFORMATION**

**U.S. DOT 49 CFR 172.101: PROPER SHIPPING NAME:** Trichloroisocyanuric acid, dry

**ID NUMBER:** UN2468

**HAZARD CLASS OR DIVISION:** 5.1

**PACKING GROUP:** II

**LABELING REQUIREMENTS:** 5.1

For all transportation accidents, call CHEMTREC at 800-424-9300.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

**SHIPPING NAME:** TRICHLOROISOCYANURIC ACID, DRY mixture

**UN NUMBER:** UN2468

**CLASS:** 5.1

**PACKING GROUP/RISK GROUP:** II

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**SECTION 14 REGULATORY INFORMATION**

**U.S. REGULATIONS: CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):** Not regulated.

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):** Not regulated.

**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):**

ACUTE: Yes                      CHRONIC: No                      FIRE: Yes                      REACTIVE: Yes

SUDDEN RELEASE: No

**SARA TITLE III SECTION 313 (40 CFR 372.65):** Not regulated.

**OSHA PROCESS SAFETY (29CFR1910.119):** Not regulated.

**OTHER U.S. REGULATIONS:** Federal Insecticide, Fungicide and Rodenticide Act (FIFRA): Registered pesticide (40 CFR 152.10).

**STATE REGULATIONS:**

**California Proposition 65:** Not regulated.

**NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW:**

**REPORTING REQUIREMENT:** TRICHLORO-S-TRIAZINETRIONE 87-90-1

**RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST:**TRICHLORO-STRIAZINETRIONE 87-90-1

**SPECIAL HEALTH HAZARD SUBSTANCE LIST:**Not regulated.

**PENNSYLVANIA RIGHT TO KNOW:**

**REPORTING REQUIREMENT:** TRICHLORO-S-TRIAZINETRIONE 87-90-1

**HAZARDOUS SUBSTANCE LIST:** TRICHLORO-S-TRIAZINETRIONE 87-90-1

**ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:** Not regulated.

**SPECIAL HAZARDOUS SUBSTANCE LIST:** Not regulated.

**CANADIAN REGULATIONS:**

**WHMIS CLASSIFICATION:** Not regulated. Not approved for use in Canada.

**NATIONAL INVENTORY STATUS: U.S. INVENTORY (TSCA):** All the components of this substance are listed on or are exempt from the inventory.

**TSCA 12(b) EXPORT NOTIFICATION:** Not listed.

**CANADA INVENTORY (DSL/NDSL):** All components of this product are listed on either the DSL or the NDSL.

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#### **SECTION 15 OTHER INFORMATION**

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SUITABILITY, STABILITY OR OTHERWISE. The information included herein is not intended to be all-inclusive as to the appropriate manner and/or conditions of use, handling and/or storage. Factors pertaining to certain conditions of storage, handling, or use of this product may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended to, and nothing herein shall be construed as a recommendation to, infringe any existing patents or violate any laws, rules, regulations or ordinances of any governmental entity.

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**24 Hour Emergency Phone: CHEMTREC 800-424-9300**

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