

1. Product and Company Identification

Product Code:	00001	
Product Name:	CDB-90	
Trade Name:	Trichloroisocyanuric Acid; TCCA; Trichlor	
Company Name:	Clearon Corporation	Phone Number:
	95 MacCorkle Avenue, SW	(800)811-2327
	South Charleston, WV 25303	
Emergency Contact:	Chemtrec	(800)424-9300
	Medical	(800)420-9236

2. Hazards Identification

Acute Toxicity: Oral, Category 4
 Serious Eye Damage/Eye Irritation, Category 1
 Specific Target Organ Toxicity (single exposure), Category 3
 Aquatic Toxicity (Acute), Category 1
 Aquatic Toxicity (Chronic), Category 1
 Oxidizing Solids, Category 2
 Skin Corrosion/Irritation, Category 1C



GHS Signal Word: Danger

GHS Hazard Phrases: H272 - May intensify fire; oxidizer.
 H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.
 H318 - Causes serious eye damage.
 H335 - May cause respiratory irritation.
 H400 - Very toxic to aquatic life.
 H410 - Very toxic to aquatic life with long lasting effects.

GHS Precaution Phrases: P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P220 - Keep away from combustible materials.
 P221 - Take any precaution to avoid mixing with combustibles/...
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.

GHS Response Phrases: P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 - Immediately call a POISON CENTER or doctor/physician.
 P330 - Rinse mouth.
 P363 - Wash contaminated clothing before reuse.
 P370+378 - In case of fire, use water spray, fog (flooding amounts) to extinguish.

GHS Storage and Disposal Phrases:	P391 - Collect spillage. P403+233 - Store container tightly closed in well-ventilated place. P405 - Store locked up. P501 - Dispose of contents/container to an approved disposal facility.
Potential Health Effects (Acute and Chronic):	Hazards not otherwise classified (HNOC) or not covered by GHS.
Additional Hazards Information	Contact with acids liberates toxic gas.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration	
87-90-1	Trichloroisocyanuric acid	99.0 %	

4. First Aid Measures

Emergency and First Aid Procedures:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
In Case of Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Get immediate medical advice/attention.
In Case of Skin Contact:	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Get medical attention immediately. Wash contaminated clothing before reuse.
In Case of Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.
In Case of Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get immediate medical advice/attention.
Signs and Symptoms Of Exposure:	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed:	No data available.

5. Fire Fighting Measures

Flash Pt:	NA
Explosive Limits:	LEL: No data UEL: No data.
Autoignition Pt:	No data.
Suitable Extinguishing Media:	Water spray, fog (flooding amounts).
Unsuitable Extinguishing Media:	Do not use halogenated extinguishing agents or foam. Dry chemical or CO2.
Fire Fighting Instructions:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.
Flammable Properties and Hazards:	No data available.
Hazardous Combustion Products:	Hydrogen chloride gas, nitrogen oxides. Carbon oxides, Sodium oxides.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Steps To Be Taken In Case Material Is Released Or Spilled:	DO NOT add water to spilled material. DO NOT use floor sweeping compounds to clean up spills. Avoid creation of dust. 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 flush with water. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions To Be Taken in Handling:	Do not get in eyes, on skin or clothing. Avoid formation of dust and aerosols. Avoid breathing (dust, vapor, mist, gas). Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.
Precautions To Be Taken in Storing:	Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Keep away from food and drinking water. Store away from incompatible material. Keep away from heat, sparks and flame. Do not store near acids.
Other Precautions:	Contact with acids liberates toxic gas.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
87-90-1	Trichloroisocyanuric acid	TWA: 5 mg/m ³	CEIL: 5 mg/m ³ (salts)	No data.

Respiratory Equipment (Specify Type):	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Eye Protection:	Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Protective Gloves:	Neoprene gloves. Wear chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Other Protective Clothing:	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering Controls (Ventilation etc.):	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Work/Hygienic/Maintenance Practices:	Handle in accordance with good industrial hygiene and safety practice.
Environmental Exposure Controls:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and Chemical Properties

Physical States:	[] Gas [] Liquid [X] Solid
Appearance and Odor:	White Granules or tablet-form product. Sharp, chlorine-like bleach odor.
pH:	2.7-2.9 - 1% soln
Melting Point:	249.00 C (480.2 F) - 251.00 C (483.8 F)
Boiling Point:	No data.
Flash Pt:	NA
Evaporation Rate:	NA
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: No data UEL: No data.
Vapor Pressure (vs. Air or mm Hg):	NA
Vapor Density (vs. Air = 1):	NA
Specific Gravity (Water = 1):	No data.
Solubility in Water:	1.2 G/ML at 25.0 C (77.0 F)
Octanol/Water Partition Coefficient:	NA
Autoignition Pt:	No data.
Decomposition Temperature:	> 225.00
Viscosity:	NA

10. Stability and Reactivity

Reactivity:	No data available.
Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Stable. However, may decompose if heated.
Incompatibility - Materials To Avoid:	Strong reducing agents, Strong bases, Hypochlorites, Floor sweeping compounds. Acids. Organic solvents and compounds.
Hazardous Decomposition or Byproducts:	Carbon oxides, nitrogen oxides. chlorine.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information

Toxicological Information:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Mutagenicity: No data available. Reproductive toxicity. No data available. CAS# 87-90-1: Acute toxicity, LD50, Oral, Rat, 809.0 MG/KG. Acute toxicity, LD50, Dermal, Rabbit, > 2000. MG/KG.
Irritation or Corrosion:	Serious eye damage/eye irritation: Skin corrosion/irritation. May cause respiratory irritation.
Symptoms related to Toxicological Characteristics:	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea.
Sensitization:	Not a sensitizer.
Chronic Toxicological Effects:	Specific target organ toxicity -single exposure: May cause respiratory irritation. Specific target organ toxicity -repeated exposure: no data available.
Carcinogenicity/Other Information:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:	Aquatic toxicity : - 96 Hour-LC50, Fish 0.32 mg/l (Rainbow trout) 0.30 mg/l (bluegill sunfish) - 48 hour-LC50, Daphnia magna 0.21 mg/l Avian toxicity: - Oral LD50, Mallard duck 1600 mg/kg - Dietary LC50, Mallard duck >10,000 ppm - Dietary LC50, Bobwhite quail 7422 ppm
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.

13. Disposal Considerations

Waste Disposal Method:	Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.
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14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Trichloroisocyanuric acid, dry.
DOT Hazard Class: 5.1 OXIDIZER
UN/NA Number: UN2468 **Packing Group:** II



LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Trichloroisocyanuric acid, dry.

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Trichloroisocyanuric acid, dry.

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Trichloroisocyanuric acid, dry.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
87-90-1	Trichloroisocyanuric acid	No	No	Yes-Cat. N106

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

Yes No Acute (immediate) Health Hazard
 Yes No Chronic (delayed) Health Hazard
 Yes No Fire Hazard
 Yes No Sudden Release of Pressure Hazard
 Yes No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
87-90-1	Trichloroisocyanuric acid	TSCA: Yes - Inventory; FIFRA: Yes - Active - 081405; MA Oil/HazMat: Yes; NJ EHS: Yes - Cat.; PA HSL: Yes - 1

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
87-90-1	Trichloroisocyanuric acid	Canadian DSL: Yes; REACH: Yes - (P)

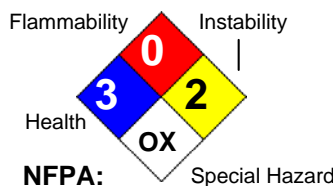
16. Other Information

Revision Date: 04/02/2017

Hazard Rating System:

HEALTH	3
FLAMMABILITY	0
REACTIVITY	2
PPE	

HMIS:



Additional Information About This Product: No data available.

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