



Product Safety Data Sheet

Section 1: Identification

Product Name: BCT-204

Function: Boiler steam line corrosion inhibitor

Manufacturer: Chemco Products, Inc., 1349 Grand Oaks Drive, Howell, MI 48843

Phone Number: 517-546-7800

Transport Emergency Phone Number: Chemtrec, 800-424-9300

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Section 2: Hazard Identification



Hazard Classifications: Flammable, corrosive, harmful if swallowed or absorbed through skin

Signal Word: DANGER!

- FLAMMABLE LIQUID AND VAPOR
- CAUSES SEVERE SKIN BURNS AND EYE DAMAGE
- HARMFUL IF SWALLOWED
- TOXIC IN CONTACT WITH SKIN
- VAPORS MAY CAUSE RESPIRATORY IRRITATION

Precautionary Statements:

- Contains cyclohexylamine – flammable material. Do not use or store near open flames, sparks, or other sources of ignition. Store away from space heaters.
- Wear eye protection and chemical-resistant gloves during use.
- Wear full-face organic vapor respirator if product fumes are present.

Non-Classified Hazards: None

Section 3: Hazardous Ingredients

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>net % by weight</u>
Cyclohexylamine*	108-91-8	33.1

*Ingredient is an EPCRA Section 302 Extremely Hazardous Substance (EHS)

Safety Data Sheet for: **BCT-204**

Section 4: First Aid Procedures

- Skin Contact: Prolonged contact with skin may create irritation or burns; absorption of amine compounds may produce toxic effects. Remove contaminated clothing and flush contact area with water for 15 minutes. Seek medical attention if irritation persists.
- Eye Contact: Contact with eyes may cause severe irritation or damage. Immediately flush eyes with water or ophthalmic rinse solution; continue flushing with water for 15 minutes to remove any residual material. Seek medical attention immediately.
- Inhalation: Inhalation of product vapors may cause respiratory irritation. Move victim to fresh air. If breathing is difficult, provide oxygen. If irritation persists, seek medical attention.
- Ingestion: Product may produce burns of the esophagus or digestive tract. May cause toxic effects as a result of ingestion. If victim is conscious, provide water or milk to dilute ingested material. Do not induce vomiting unless instructed by a physician or Poison Control Center. Get immediate medical attention.

Section 5: Fire-Fighting Measures

- Special Hazards: Thermal decomposition may produce hazardous CO/NO_x fumes; heated product will also produce flammable vapors. Wear self-contained breathing apparatus.
- Extinguishing Media: For small fires, use A-B-C fire extinguisher. Large fires may be extinguished with any media suitable for the surrounding fire.

Section 6: Accidental Release Measures

- First Responders should wear all recommended personal protective equipment outlined in Section 8. For large spill cleanup, personnel should wear a full-face respirator with organic vapor cartridge, and chemical-resistant coveralls, gloves, and boots.
- Prevent spills from contaminating natural waterways or municipal sewer systems. Use chemical-resistant spill control socks/booms to minimize spread of spill.
- Reclaim as much spilled material as possible and return to original container. Small quantities of spill residue may be neutralized with citric acid and flushed with water to internal wastewater treatment system.

Section 7: Storage and Handling

- Store at room temperature, away from sources of ignition. Keep container closed when not in use.
- Store away from strong oxidizing substances, strong acids, and nitrite compounds.
- Use containment devices to prevent uncontrolled spills.
- Do not eat, drink, or smoke while handling product; wash thoroughly with soap after handling.

Safety Data Sheet for: **BCT-204**

Section 8: Personal Protection and Exposure Controls

Protective Equipment Requirements:

1. **Splash goggles or face shield***
2. **Organic vapor respirator***
3. **Chemical-resistant gloves**
4. **Chemical-resistant apron**

***Note: A full-face respirator with organic vapor cartridge may be used instead of Items 1 and 2**

Airborne Exposure Limits

<u>Hazardous Ingredient</u>	<u>Exposure Limit</u>
Cyclohexylamine	20 mg/m ³ (TWA)

Section 9: Physical and Chemical Properties (n.a. = not available)

- Appearance: Clear pale yellow liquid
- Odor: Amine
- pH, neat: 12.0
- Specific Gravity: 0.98
- Water solubility: Complete
- Freezing/Boiling points, degrees F: 32 / 212
- Viscosity: < 100 cps
- Flash point, degrees F: 116 (measured/CC)
- Upper/Lower explosive limits: 9.4% / 1.5% (as cyclohexylamine)
- Auto-ignition temperature, degrees F: 560
- Decomposition temperature, degrees F: n.a.
- Vapor pressure/density: n.a.
- Evaporation rate: n.a.
- Octanol/Water partition coefficient: n.a.

Section 10: Stability and Reactivity

Chemical Stability: This product is stable under normal storage and use conditions. Keep container closed and prevent exposure to temperature extremes and sources of ignition.

Reactivity: This product may react violently with strong oxidizing materials and strong acids. Contact with nitrite compounds may produce carcinogenic nitrosamines.

Section 11: Toxicological Information

Likely route(s) of exposure: eye/skin contact (irritation), inhalation

*Toxicity values are estimated using aggregate ingredient toxicities.

- Acute oral toxicity: LD₅₀, rat = 470 mg/kg
- Acute dermal toxicity: LD₅₀, rabbit = 835 mg/kg
- Acute inhalation toxicity: LC₅₀, 4h, rat = > 100 mg/l

Carcinogenicity/Teratogenicity: Does not contain known or suspected carcinogens.

Safety Data Sheet for: **BCT-204**

Section 12: Ecological Information

a. Aquatic Toxicity

Rainbow trout, 96 hr LC₅₀, = 130 mg/l (estimated)

Daphnia magna, 48 hr LC₅₀, = 240 mg/l (estimated)

Prevent spills from entering natural waterways and sewer systems.

b. Biodegradability

All of the ingredients in this product have been determined to be readily biodegradable; however, no measurement of degradability has been made for the product as a whole.

c. Environmental Fate

No data regarding environmental fate are available.

Section 13: Disposal Considerations

Personnel responding to spills of this product should wear a full-face respirator with organic vapor cartridge, chemical-resistant coveralls, gloves, and boots.

If disposed of, product is a D002 (Corrosive) hazardous waste. Product should be used up, if possible, or stored in sealed containers for proper disposal at a licensed waste facility.

Empty containers should be triple-rinsed with water prior to recycling or disposal.

Section 14: Transport Information

FOR TRANSPORT EMERGENCIES, CONTACT CHEMTREC, 1-800-424-9300

Proper shipping description: UN2735, Amines, liquid, corrosive, n.o.s., 8, PG II (contains cyclohexylamine)

DOT Hazard Class(es): Class 8, Corrosive

CERCLA Reportable Spill Quantity (RQ) = 30,000 lbs./3,670 gallons

Section 15: Regulatory Information

<u>Regulation</u>	<u>Applicable</u>	<u>Notes</u>
OSHA Hazardous Material	Yes	Corrosive, flammable, toxic
CERCLA Reportable Spill Quantity (RQ)	Yes	30,000 lbs.
EPCRA Section 302 Extremely Hazardous Substance	Yes	Cyclohexylamine, 33.1%
EPCRA Section 311 Hazardous Material	Yes	Acute hazard
EPCRA Section 312 Hazardous Chemical Inventory	Yes	TPQ = 10,000 lbs.
EPCRA Section 313 Toxic Chemical	No	

Safety Data Sheet for: **BCT-204**

Section 16: Additional Information

<u>HMIS Hazard Rating</u>	
Health	3
Flammability	2
Reactivity	0
Personal Protection	H

0 = minimal

1 = slight

2 = moderate

3 = serious

4 = severe

Code H = splash goggles, chemical-resistant gloves and apron, organic vapor respirator