

Material Safety Data Sheet

Product Trade Name: **RUST INHIBITOR CL**

ID: H935

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name: **RUST INHIBITOR CL**

Manufacturer Information

Heatbath Corporation

P.O. Box 51048

Indian Orchard, MA 01151-5048

Contact Phone: (413) 452-2000

8:00 AM-5:00PM

CHEMTREC Emergency Phone: (800) 424-9300

24 Hours

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Mixture	Borate Amine (s)	> 20
010043-35-3	Boric Acid	< 1
000141-43-5	Monoethanolamine	< 1
000102-71-6	Triethanolamine	< 1

Component Related Regulatory Information

This product may be regulated, have exposure limits or have other information identified as the following:
Boric Acid (010043-35-3), Triethanolamine (000102-71-6) and Monoethanolamine (000141-43-5).

Additional Information:

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 3 - Hazards Identification ***

Emergency Overview:

WARNING! - Contact with this material can cause severe irritation or burns to the skin, eyes and mucous membranes.

Eye Contact:

This product is severely irritating to the eyes and may cause burns and irreversible damage.

Skin Contact:

This product is corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns.

Skin Absorption:

Not expected for this product.

Ingestion:

This product will cause irritation or burns to the throat, esophagus, and gastrointestinal tract if it is swallowed.

Inhalation:

Inhalation of dusts or mists of this product will cause irritation or burns to the nasal passages and respiratory tract.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin, gastrointestinal and respiratory disorders may be aggravated by exposure.

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*** Section 4 - First Aid Measures ***

Eye Contact:

If this chemical contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. Do not wear contact lenses when working with this chemical.

Skin Contact:

If this chemical contacts the skin, flush the contaminated skin with water promptly. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists or develops after washing, get medical attention.

Ingestion:

If this chemical has been swallowed, get medical attention immediately. Give victim several glasses of water to drink. Vomiting may occur spontaneously; do not induce vomiting. Do not give anything by mouth to an unconscious person.

Inhalation:

If a person breathes large amounts of this chemical, move the exposed person to fresh air at once. Other measures are usually unnecessary. If breathing difficulty persists or develops, get prompt medical attention.

First Aid: Notes to Physician

No additional information is available.

*** Section 5 - Fire Fighting Measures ***

Flash Point:	> 212 °F	Upper Flammable Limit (UFL):	Not applicable
Flammability Classification:	Nonflammable	Lower Flammable Limit (LFL):	Not applicable

Fire & Explosion Hazards:

None expected.

Decomposition Products:

Upon decomposition, this product may emit toxic nitrogen oxide (NO_x) fumes.

Extinguishing Media:

Use any media suitable for the surrounding fires.

Fire-Fighting Instructions:

Firefighters: Wear full protective clothing including self-contained breathing apparatus. Properly decontaminate all equipment after use.

*** Section 6 - Accidental Release Measures ***

Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.

Containment Procedures:

Stop the flow of material, if this can be done without risk. Wear appropriate protective equipment and clothing during clean up.

Clean-Up Procedures:

Absorb spill with inert material and transfer material into appropriate container(s) for disposal. Dispose of collected material according to local, state, and federal regulations.

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*** Section 7 - Handling and Storage ***

Handling Procedures:

Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. Use with adequate ventilation. This product is for industrial use only. Do not take internally.

Storage Procedures:

Keep container tightly closed when not in use. Store in a cool, well-ventilated area away from incompatible materials. Thaw and mix thoroughly if frozen.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:

A: General Product Information

Follow all applicable exposure limits. Keep formation of airborne mists to a minimum.

B: Component Exposure Limits

Boric Acid (010043-35-3)

ORG: 1.5 mg/m³ TWA (8-hr); UF = 100; CR = NA; Endpoint = R

Monoethanolamine (000141-43-5)

ACGIH TLV: 3 ppm TWA; 6 ppm STEL; irritation

OSHA PEL: 3 ppm TWA; 8 mg/m³ TWA; 6 ppm STEL; 15 mg/m³ STEL

NIOSH REL: 3 ppm; 8 mg/m³ TWA; 6 ppm STEL; 15 mg/m³ STEL

Triethanolamine (000102-71-6)

ACGIH TLV: 5 mg/m³ TWA; irritation

OSHA PEL: TWA; 6 ppm STEL; 15 mg/m³ STEL

NIOSH REL: 3 ppm; 8 mg/m³ TWA; 6 ppm STEL; 15 mg/m³ STEL

Engineering Controls:

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

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face Protective Equipment:

Wear appropriate eye protection to prevent eye contact.

Skin Protection:

Wear appropriate personal protective clothing to prevent skin contact. The worker should immediately wash the skin when it becomes contaminated. Remove wet or significantly contaminated work clothing and replace. Use of impervious apron and boots are also recommended. (For chromic acid, add "Discard contaminated leather footwear.")

Workers whose clothing may have become contaminated should change into uncontaminated clothing before leaving the work premises.

Respiratory Protection:

If ventilation is not sufficient to effectively prevent buildup of mists or vapors, provide appropriate NIOSH/MSHA respiratory protection.

Personal Protective Equipment:

Provide eyewash fountains in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Provide facilities for quickly drenching the body within the immediate work area for emergency use where there is a possibility of exposure. Depending on the specific circumstances, a deluge shower, a sink or hose could be considered adequate.

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*** Section 9 - Physical & Chemical Properties ***

Physical State: Liquid	Appearance: Clear colorless to light amber
Odor: Mild	Vapor Pressure: N/A
Vapor Density: N/A	Boiling Point: >212 °F (100 °C)
Specific Gravity: 1.10	pH: 9.8 – 10.5
Viscosity: ND	VOC: None
Solubility in Water: Complete	Evaporation Rate: N/A
Percent Volatile: ND	Percent Solids: ND

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Keep away from heat and incompatible materials.

Incompatibility:

Do not expose this product to excessive heat conditions, strong oxidizers, acids, or various organic materials (e.g., isocyanates, organic anhydrides, acrylates, substituted allyls, alkylene oxides, epichlorohydrin, aldehydes). This product will corrode copper and its alloys.

Decomposition Products:

Upon decomposition, this product may emit toxic nitrogen oxide (NO_x) fumes.

Hazardous Polymerization:

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information is available for the product.

B: Component Analysis - LD50/LC50

Boric Acid (010043-35-3)

Oral LD₅₀ Rat: 2660 mg/kg

Oral LD₅₀ Mouse: 3450 mg/kg

Monoethanolamine (000141-43-5)

Oral LD₅₀ Rat: 1720 mg/kg

Oral LD₅₀ Mouse: 700 mg/kg

Dermal LD₅₀ Rabbit: 1 mL/kg

Triethanolamine (000102-71-6)

Oral LD₅₀ Rat: 4920 mg/kg

Oral LD₅₀ Mouse: 5846 mg/kg

Dermal LD₅₀ Rabbit: >20 mL/kg

Carcinogenicity:

A: General Product Information

No information is available for the product.

B: Component Carcinogenicity

Triethanolamine (000102-71-6)

IARC: Group 3 (not classifiable)

NTP: Evidence in male rats

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Chronic Toxicity

No information is available for the product.

Epidemiology:

No information is available for the product.

Neurotoxicity:

No information is available for the product.

Mutagenicity:

No information is available for the product.

Teratogenicity:

No information is available for the product.

Other Toxicological Information:

No information is available for the product.

* * * Section 12 - Ecological Information * * *

Ecotoxicity:

A: General Product Information

No data is available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No data is available for this product.

Boric Acid (010043-35-3)

Test & Species	Amount	Conditions
LC50 (48 hr) water flea	115.0 – 153.0 mg/L	Static

Monoethanolamine (000141-43-5)

Test & Species:	Amount:	Conditions:
LC50 (96 hr) goldfish	170.0 mg/L	
EC50 (30 min) Photobacterium phosphoreum	13.7 mg/L	Microtox test

Triethanolamine (000102-71-6)

Test & Species:	Amount:	Conditions:
LC50 (24 hr) goldfish	5000 mg/L	

Environmental Fate:

No data is available for this product.

* * * Section 13 - Disposal Considerations * * *

Wastes must be tested using methods described in 40 CFR Part 261. It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous wastes. State and local regulations may differ from Federal disposal regulations. Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

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*** Section 14 - Transportation Information ***

US DOT Information

Proper Shipping Name ETHANOLAMINE, SOLUTION
Hazard Class 8
UN / NA Number UN2491
Packing Group III
Product RQ (lb) --

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information is available.

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312: **Acute:** No **Chronic:** No **Fire:** No **Pressure:** No **Reactive:** No

State Regulations

A: General Product Information

No information is available.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA	RI
Monoethanolamine	000141-43-5	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Triethanolamine	000102-71-6	No	Yes	Yes	Yes	Yes	Yes	Yes

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis - Inventory

All components are on the U.S. EPA TSCA Inventory List and Director's Substance List-Canada.

Component	CAS #	US TSCA	CANADA DSL	EUROPE EINECS
Boric Acid	010043-35-3	Yes	Yes	Yes
Monoethanolamine	000141-43-5	Yes	Yes	Yes
Triethanolamine	000102-71-6	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Boric Acid	010043-35-3	1% item 204 (67)
Monoethanolamine	000141-43-5	1% item 1096 (1170)
Triethanolamine	000102-71-6	1% item 1621 (1663)

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***** Section 16 – Other Information *****

NFPA Ratings: **Health:** 3 **Fire:** 0 **Reactivity:** 0 **Other:**
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: **Health:** 3 **Fire:** 0 **Reactivity:** 0 **Personal Protection:**
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

MSDS Change History:

8/20/02: Rev.03; MSDS as issued by Chemtech Finishing Systems.
1/18/05: Chemtech Finishing Systems acquired by Heatbath Corporation.
1/17/06: Rev.04; Chemtech MSDS issued under new manufacturer: Heatbath Corporation.
 Sec.1 - Manufacturer Information Updated
 Sec.16 - MSDS Change History section added

Key/Legend:

ACGIH = American Conference of Governmental Industrial Hygienists	NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act	NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency	NTP = National Toxicology Program
HMIS = Hazardous Material Identification System	OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer	SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration	TSCA = Toxic Substance Control Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Heatbath Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

This is the end of MSDS for RUST INHIBITOR CL.