

# MATERIAL SAFETY DATA SHEET

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME (as used on Label) CATEXOL™ CN-CI

Product Use: Corrosion Inhibitor for Steel in Concrete.

Manufacturer's Name & Address:	Emergency Telephone Number:	(800) 424-9300
AXIM		(CHEMTREC)
P.O. Box 234	Telephone Number for Information:	(330) 966-0444
8282 Middlebranch Road		Ext. 2046
Middlebranch, Ohio 44652	Date Prepared: April 2009	

MSDS Prepared By: Industrial Health & Safety Consultants, Inc.

MSDS Number: 2000004-5      Cancels MSDS #: No MSDS # (Rev. April 2009)      Date of Last Rev.: April 2009

## SECTION 2. HAZARDS IDENTIFICATION

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This product is a clear, light yellow to colorless solution with a slight sweet odor.

### EMERGENCY OVERVIEW

#### WARNING!

Even though calcium nitrite is classified as an oxidizing agent under DOT regulations, it acts as a reducer in contact with many common materials and in its intended use in contact with water and concrete metal reinforcement. It is advised to consider both possible reactions (oxidation and reduction) in term of prevention, safety, and hazard. Potential oxidizer in contact with flammable or combustible materials. Contact of dried product with combustible materials may cause fire.

Causes eye and skin irritation. Inhalation of mists may cause respiratory irritation, coughing, sore throat, shortness of breath, and tightness in the chest. Harmful if swallowed. May cause irritation of the mouth, throat and gastrointestinal tract, nausea, vomiting, headache, cyanosis due to methemoglobinemia, fall in blood pressure, heart irregularities, collapse, and coma.

See Section 11 for detailed information.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Component	CAS No.	Amount by Wt.
Calcium Nitrite	13780-06-8	30-40%
Calcium Nitrate	10124-37-5	<5%
Non-Hazardous Ingredients	Mixture	60-70%

## SECTION 4. FIRST AID MEASURES

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**Eye:** Immediately flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.

**Skin:** Remove contaminated clothing. Immediately flush skin with water for at least 15 minutes. If irritation develops or persists, get medical attention. Launder clothing before re-use. (Discard contaminated shoes.) Do not allow product to dry on clothing – may present a fire hazard.

**Ingestion:** DO NOT INDUCE VOMITING. If conscious, rinse mouth with water and give one glass of water. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

**Inhalation:** Immediately remove to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

## SECTION 5. FIRE FIGHTING MEASURES

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**Extinguishing Media:** This product is not combustible in liquid form. Use any media that is appropriate for the surrounding fire.

**Special Fire Fighting Procedure:** Firefighters should wear positive-pressure, self-contained breathing apparatus and full protective clothing. Do not allow run-off from fire fighting to enter drains or water courses.

**Unusual Fire and Explosion Hazards:** This product is an aqueous solution that will not burn; however, dried product may decompose under fire conditions. While this product is not an oxidizer as sold, concentrated nitrites are oxidizing agents. Dried residue may cause ignition of flammable or combustible materials.

**Hazardous Combustion Products:** Oxides of calcium and nitrogen.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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Evacuate spill area and keep unprotected personnel away. Remove all combustible or flammable materials from spill area if it is safe to do so. Wear appropriate protective clothing as described in Section 8. Collect liquid with an inert absorbent and place into container. Do not use combustible absorbents or towels or activated carbon. Report releases as required by local, state, and federal authorities.

## SECTION 7. HANDLING AND STORAGE

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**Handling:** Avoid contact with the eyes, skin, and clothing. Avoid breathing mists. Wear protective clothing and equipment. Wash thoroughly with soap and water after handling. Keep away from all flammable or combustible materials such as solvents, oil, paper, cloth rags, etc. Immediately remove and launder contaminated clothing. Do not allow product to dry on clothing – may present a fire hazard.

**Do not reuse un-approved containers.** Empty containers that retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

**Storage:** Store in a dry, well-ventilated area away from excessive heat and incompatible materials. Avoid storage on wooden floors.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Exposure Guidelines:

Calcium Nitrite	None Established
Calcium Nitrate	None Established

**Engineering Controls:** General ventilation is normally adequate. For operations where exposure levels are excessive, local exhaust ventilation, or other mechanical ventilation may be needed.

**Respiratory Protection:** If exposure levels are excessive or irritation is experienced, a NIOSH approved particulate (dust/mist) respirator (N95 or better filters) may be worn. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134, CSA Standard Z94.4-02, and good industrial hygiene practice.

**Skin Protection:** Wear impervious gloves such as rubber to prevent contact.

**Eye Protection:** Chemical safety goggles are recommended. The additional use of a face shield is recommended if splashing is likely.

**Other:** Wear impervious clothing as needed to prevent contact. A safety shower and eyewash should be available in the immediate work area.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance and Odor:** Clear, light yellow to colorless solution with a slight sweet odor.

Physical State: Liquid	Boiling Point: 226°F (108°C)
Vapor Density: Not applicable	Vapor Pressure: Not applicable
Solubility In Water: 100%	Evaporation Rate: Same as water
Specific Gravity: 1.285 +/- 0.028 @ 25°C	pH: 9.0 +/- 1.5
Melting Point: Not applicable	Octanol/Water Coefficient: Not determined
Flash Point: None	Flammable Limits: LEL: Not applicable UEL: Not applicable

## SECTION 10. STABILITY AND REACTIVITY

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**Stability:** Stable

**Incompatibility:** (Materials to Avoid): Avoid contact with acids, ammonium salts, activated carbon, oxidizing agents, reducing agents, cyanides, and flammable/combustible materials. Avoid exposure to excessive heat.

**Hazardous Decomposition Products:** Thermal decomposition may generate oxides of calcium and nitrogen. Reaction with acids may yield toxic nitrogen oxides.

**Hazardous Polymerization:** Will not occur

## SECTION 11. TOXICOLOGICAL INFORMATION

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### HEALTH HAZARDS:

**Ingestion:** Ingestion may cause irritation of the mouth, throat and gastrointestinal tract, dizziness, headache, nausea, vomiting, diarrhea, low blood pressure, vertigo, collapse, cyanosis, abdominal pain, methemoglobinemia, rapid heart beat, irregular breathing, coma, convulsions, circulatory collapse, and death.

**Inhalation:** Inhalation of mists may cause respiratory irritation with symptoms of coughing, nose bleeds, sore throat, shortness of breath, and tightness in the chest. Cyanosis and other effects similar to ingestion are possible if large amounts are inhaled.

**Eye:** Contact may cause moderate-to-severe irritation with redness, tearing, and pain. Corneal damage is possible.

**Skin:** Contact may cause irritation with redness, itching, and pain.

**Sensitization:** This product is not expected to cause sensitization.

**Chronic:** None currently know.

**Carcinogenicity:** None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

**Mutagenicity:** No data is available.

**Medical Conditions Aggravated by Exposure:** Employees with pre-existing skin and respiratory disease may be at increased risk from exposure.

### Acute Toxicity Values:

Calcium Nitrite: Oral Rat LD50 940 mg/kg

Calcium Nitrate: Oral Rat LD50 302 mg/kg

## SECTION 12. ECOLOGICAL INFORMATION

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In high concentrations, this product may be dangerous to aquatic life.

Calcium Nitrite: LC50 daphnia 32-63 mg/L/48 hr.

Calcium Nitrate: LC50 bluegill 2,400 mg/L/96 hr.

## SECTION 13. DISPOSAL CONSIDERATIONS

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Waste Disposal Method: Dispose according to local, state, and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

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This product is not regulated for transportation by US DOT or Canadian TGD.

**Surface Freight Classification:** Concrete or Masonry Plasticizer and Water Reducing Compound.

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## SECTION 15. REGULATORY INFORMATION

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**CERCLA:** This product is not subject to CERCLA release reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state, and local regulations.

**SARA Hazard Category (311/312):** Acute health, chronic health

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Calcium Nitrate (nitrate compound)	10124-37-5	<5%
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**EPA TSCA Inventory:** All of the ingredients in this product are listed on, or exempt from, the EPA TSCA Inventory.

### CANADA:

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

**Canadian WHMIS Classification:** Class D - Division 2 - Subdivision A - (A very toxic material causing other chronic effects)

**Canadian CEPA:** All of the ingredients in this product are listed on, or exempt from, the Canadian DSL.

## SECTION 16. OTHER INFORMATION

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**NFPA Rating:** Health = 2                      Fire = 0                      Instability = 0  
**HMIS Rating:** Health = 2                      Fire = 0                      Reactivity = 0  
4 = Severe Hazard    3 = Serious Hazard    2 = Moderate Hazard    1 = Slight Hazard    0 = Minimal Hazard

### REVISION SUMMARY:

Date Prepared: November 2001  
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The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, state and local laws and regulation applicable to safety, occupational health, right to know and environmental protection.