



41041 Black Bayou Rd, Gonzales, Louisiana, USA 70737  
Phone (225) 644-5255 FAX (225) 644-3975  
www.geniefilters.com sales@geniefilters.com

## MATERIAL SAFETY DATA SHEET: XC - X-CORRODE PACKETS

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### Section 1 PRODUCT AND COMPANY IDENTIFICATION

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Manufacturer's Name and Address:

A+ Corporation, LLC  
41041 Black Bayou Rd. EMERGENCY TELEPHONE NUMBER: (225) 644-5255  
Gonzales, LA 70737 Date Prepared: 01/03/09

**PRODUCT NAME: XC - X-CORRODE PACKETS (Includes all "XC" prefix part numbers)**

PRODUCT USE: Corrosion control packet for electrical and electronic enclosures

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### Section 2 PRODUCT INFORMATION

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<u>Name</u>	<u>%</u>
A proprietary granular vapor corrosion inhibitor in a vapor permeable pouch	100

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### Section 3 HAZARD IDENTIFICATION

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:

The granular vapor corrosion inhibitor is hazardous according to the OSHA Haz Com Standard. The granular vapor corrosion inhibitor is harmful if inhaled directly (acute inhalation expected to be toxic) and may be harmful if swallowed. Acute skin is essentially non-toxic by skin absorption. Not expected to be irritating. Not expected to be a skin sensitizer. Acute eye – may cause slight irritation. Acute ingestion – may be harmful if swallowed. No carcinogenic substances as defined by IARC, NTP and /or OSHA.

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**Section 4****FIRST AID MEASURES**

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:

If inhaled:

Remove to fresh air. Get medical attention if irritation develops.

On skin contact:

Wash thoroughly with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, get medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, get medical attention.

On ingestion:

Rinse mouth. Get immediate medical attention.

Notes to Physicians: None known. Treat according to symptoms (decontamination, vital functions). No known specific antidote.

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**Section 5****FIRE-FIGHTING MEASURES**

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Suitable extinguishing media:

Water spray, dry extinguishing media, foam

Unsuitable extinguishing media for safety reasons:

Carbon dioxide

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations. The degree of risk is governed by the burning substance and the fire conditions.

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**Section 6****ACCIDENTAL RELEASE MEASURES**

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:  
See First Aid Measures.

Methods for cleaning up or taking up:

Remove mechanically with grounded or non-sparking tools by a method that minimizes the generation of airborne dust. Do not use compressed air for cleaning.

For large amounts: Contain with dust binding material and dispose of.

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**Section 7****HANDLING AND STORAGE**

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Handling:

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.

Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:  
Breathing must be protected without local exhaust ventilation.

Avoid the formation and deposition of dust.

Avoid contact with skin, eyes, or clothing.

Protection against fire and explosion:

The relevant fire protection measures should be noted.

Storage:

Further information on storage conditions: Containers should be tightly sealed in a dry place.

The granular vapor corrosion inhibitor ingredient shall not be heated above 320F (160C) or else a highly exothermic reaction may result.

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**Section 8****EXPOSURE CONTROLS AND PERSONAL PROTECTION**

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:  
Country specific exposure limits have not been established or are not applicable.

Use local and general exhaust ventilation.

Due to the granular vapor corrosion inhibitor, use NIOSH approved air-purifying particulate respirator with P-100 filters.

Hand protection:

Chemical resistant protective gloves

Eye protection:  
Safety glasses with side-shields (frame goggles)

General safety and hygiene measures:  
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Wash hands and face before eating, drinking, or using tobacco products.

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**Section 9** **PHYSICAL AND CHEMICAL PROPERTIES**

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**Granular Vapor Corrosion Inhibitor**

Form:	granules
Color:	pale yellow
Odor:	characteristic
Bulk Density:	N/A
Solubility in water:	approx 19 g/L (20°C)
Boiling Point/Range	> 200°C (> 392°F)
Flash Point	approx 195°C (383°F)
Vapor Pressure	approx 0.00001 mbar (25°C)
Specific Gravity	approx 1.19 (100°C)
Auto-ignition Temp	approx 400°C (752°F)
Decomposition Temp	approx 160°C (320°F)
Molecular Weight	119.1

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**Section 10** **STABILITY AND REACTIVITY**

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:

Hazardous reactions:

The product is not a dust explosion risk as supplied. However, if the package is damaged from abnormal conditions, the build-up of fine dust can lead to a risk of dust explosion.

The granular vapor corrosion inhibitor hazardous decomposition products by fire and thermal decomposition are carbon oxides and nitrogen oxides.

Avoid extreme heat.

Avoid oxidizing agents and reducing agents.

Stability: stable

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**Section 11** **TOXICOLOGY INFORMATION**

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Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:

Acute oral toxicity

LD50/oral/rat: > 560mg/kg

Acute inhalation toxicity

LC50/rat: 1910mg/m<sup>3</sup>, 3 h (rat)

Acute dermal toxicity

LD50/dermal/rabbit: >2,000 mg/kg

LD50/dermal/rat: >1,000 mg/kg

Eye irritation: rabbit, slightly irritating

Primary skin irritation/rabbit: non-irritant 4 h

Sensitization:

No sensitizing effect (Guinea pig)

Repeated Dose Toxicity

Vapor Corrosion Inhibitor – 13 d, oral: NOAEL: 103 mg/kg (rat)

Mutagenicity:

Genetic Toxicity in Vitro:

Bacterial – gene mutation assay: positive (E.coli, Metabolic Activation: with/without)

Bacterial – gene mutation assay: positive (Salmonella typhimurium)

Carcinogenicity:

rat, Male/Female, oral, 78 w,

In Fischer 344 rats there was an increased incidence of brain tumors, however, there was no convincing evidence that under the conditions of this bioassay the component was carcinogenic in rats of either sex.

Mouse, Male/Female, oral, 78 w,

In female B6C3F1 mice there was an increased incidence of alveolar/bronchiolar carcinomas, however, there was no convincing evidence that under the conditions of this bioassay the component was carcinogenic in mice of either sex.

Under normal conditions, the granules are enclosed in a pouch that does not allow skin or eye contact. The packet does not allow dust to escape.

If the packet, is damaged from abnormal conditions and the granules are exposed, then:

**Biodegradation**

80 – 90%, Exposure time: 28 d, readily biodegradable.

**Biological Oxygen Demand (BOD)**

0 – 1 mg/g

**Bioaccumulation**

2.5 BCF

**Acute and Prolonged Toxicity to Fish**

LC0:100 mg/L (Zebra fish (*Brachydanio rerio*))

LC50: 25mg/L (Bluegill (*Lepomis macrochirus*), 96 h)

**Acute Toxicity to Aquatic Invertebrates**

NOEC: 25.9 mg/L (Water flea (*Daphnia magna*), 21 d)

EC0: 63 mg/L (Water flea (*Daphnia magna*), 48 h)

**Toxicity to Aquatic Plants**

LC50: 23 mg/L, (Green algae (*Scenedesmus subspicatus*), 72h)

231 mg/L, (other: algae, 72h)

**Toxicity to Microorganisms**

EC50: 1,060 mg/L, (Activated sludge microorganisms)

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**Section 13**

**DISPOSAL CONSIDERATIONS**

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Waste disposal should be in accordance with national and local regulations.

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**Section 14**

**TRANSPORT INFORMATION**

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Not classified as hazardous under transport regulations

Land: Not regulated by the Department of Transportation

Sea: Not regulated by IMDG

Air: Not regulated by ICAO/IATA

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**Section 15**

**REGULATORY INFORMATION**

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TSCA Inventory Status – Listed on inventory: Yes  
SARA – 313 Listed Chemical: No  
RCRA Haz. Waste No.: N/A  
CERCLA: No

State Regulatory Information:

NJ/PA/MA: Yes

California Prop 65:

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

Hazard Ratings:

HMIS Health-2 Fire-1 Reactivity-0 Specific-None

**The vapor corrosion inhibitor is hazardous according to the OSHA Haz Com Standard.**

The information herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, A+ Corporation, LLC cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assumes any liability, for its use. Recipients of our product must take responsibility for observing existing laws and regulations.