

**MATERIAL SAFETY DATA SHEET  
THE CORTEC CORPORATION  
4119 WHITE BEAR PARKWAY  
ST. PAUL, MINNESOTA 55110  
PHONE: 651-429-1100 OR TOLL FREE 1-800-4-CORTEC  
FAX: 651-429-1122**

EMERGENCY PHONE NO.: CHEMTREC (FOR SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT): 1-800-424-9300 (DAY OR NIGHT)

\*\*\*\*\* M-235 \*\*\*\*\*

**SECTION I - PRODUCT IDENTIFICATION**

PRODUCT NAME: **M-235**  
PRODUCT DESCRIPTION: Corrosion inhibitor for copper

**SECTION II - HAZARDOUS INGREDIENTS**

INGREDIENT NAME(S)	WEIGHT (%)	OCCUPATIONAL EXPOSURE LIMITS	
		TLV OR PEL	ORAL LD-50
Trade secret	>99	N.E.	560 mg/kg (rat)

Carcinogenic: **OSHA** = no      **NTP** = no      **IARC** = no

**SECTION III - PHYSICAL DATA**

COLOR: Off-white to yellow      PHYSICAL FORM: Powder  
NON-VOLATILE (weight): >99%      pH: N.E.  
VAPOR DENSITY: N.E.      ODOR: Characteristic  
EVAPORATION RATE: N.E.      DENSITY: N.A.  
MELTING RANGE: 201°-210°F (94°-99°C)  
BOILING RANGE: N.E.

**SECTION IV - FIRE AND EXPLOSION DATA**

HMIS FLAMMABILITY RATING: 1  
FLASH POINT: N.E.  
FLAMMABLE LIMITS: LEL: N.E.      UEL: N.E.  
EXTINGUISHING MEDIA: Carbon dioxide or other dry chemical fire fighting agents.  
UNUSUAL FIRE AND EXPLOSION HAZARDS: Airborne dust is rated a severe explosion hazard at a minimum concentration of 0.03 oz./ft<sup>3</sup> (30 g/m<sup>3</sup>).  
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained breathing apparatus.

**SECTION V - HEALTH HAZARD DATA**

EMERGENCY AND FIRST AID PROCEDURES:  
Eye Contact: Flush eyes with water for at least 15 minutes. Consult a physician. Skin Contact: Wash affected area with soap and water. If irritation persists, consult a physician. Inhalation: Remove to an uncontaminated area, administer oxygen if necessary. If victim has stopped breathing begin CPR. Get medical attention. Ingestion: If swallowed, give water or milk and induce vomiting. Get immediate medical attention.  
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: None known  
PRIMARY ROUTES OF ENTRY: Inhalation, skin and eye contact.  
HEALTH HAZARDS (acute and chronic) / EFFECTS OF OVEREXPOSURE:  
1. Eye contact with this product may produce irritation.  
2. Repeated or prolonged contact with skin may produce mild irritation.  
3. Inhalation of product vapors is not expected to pose a significant health hazard due to the low vapor pressure of the product. Excessive inhalation of dusts resulting from the use of this product may be harmful and should be avoided.  
4. Ingestion of this product may be harmful.

**SECTION VI - REACTIVITY DATA**

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur  
HAZARDOUS DECOMPOSITION PRODUCTS: (Under fire conditions) Oxides of carbon and nitrogen.  
INCOMPATIBILITY: Oxidizing agents.  
CONDITIONS TO AVOID: Contact with incompatible materials.

**SECTION VII - SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up.  
WASTE DISPOSAL: Incinerate or dispose of in accordance with existing Federal, State and Local environmental regulations.

**SECTION VIII - SAFE HANDLING AND USE INFORMATION**

RESPIRATORY PROTECTION: A NIOSH approved dust/mist respirator is recommended.  
PROTECTIVE GLOVES: Chemical resistant rubber or plastic.  
EYE PROTECTION: Safety goggles.  
OTHER PROTECTIVE EQUIPMENT: Eye wash station.

**SECTION IX - SPECIAL PRECAUTIONS AND STORAGE DATA**

PRECAUTIONS TO BE TAKEN IN HANDLING: Avoid inhalation of dusts. Avoid eye contact and prolonged or repeated skin contact. Workers should thoroughly wash hands with soap and water prior to eating, drinking, smoking or using lavatory.  
PRECAUTIONS TO BE TAKEN IN STORING: Keep containers tightly closed and store in a cool dry place.

**SECTION X - SHIPPING DATA**

DOT/IMDG/IATA SHIPPING NAME: N.A.  
UN/NA NUMBER: N.A.  
DOT/IMDG/IATA HAZARD CLASS.: N.A.  
T.S.C.A. STATUS: Listed  
DOT/IMDG/IATA REQUIRED LABELS: N.A.  
TECHNICAL SHIPPING NAME: N.A.

PREPARED BY: Margarita Kharshan, R&D Manager  
APPROVED BY: Christophe Chandler, Lab Director  
DATE PREPARED: 1/12/99      SUPERSEDES: None

**DISCLAIMER:** This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of the Cortec Corporation. The data on this sheet relates only to the specific material designated herein. The Cortec Corporation assumes no legal responsibility for use or reliance upon this data.

N.E. = NOT ESTABLISHED      N.A. = NOT APPLICABLE