



Arch Chemicals, Inc.

**MATERIAL  
SAFETY DATA**

FOR ANY EMERGENCY, CALL 24HOURS/ 7 DAYS:	<b>1-800-654-6911</b>
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC(R):	1-800-424-9300
FOR ALL MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS

PRODUCT NAME: **Wolman E ® (CA-B)**

**1. PRODUCT AND COMPANY IDENTIFICATION**

REVISION DATE: 11-03-2003  
SUPERCEDES: 10-23-2003  
MSDS NO: 04557-0001 - 100496  
SYNONYMS: Copper Azole  
CHEMICAL FAMILY: Mixture  
DESCRIPTION / USE: General-use pesticide for wood preservative.  
FORMULA: Not applicable/Mixture

Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

CAS or CHEMICAL NAME	CAS #	% Range
Ethanolamine	141-43-5	Proprietary
Copper compounds	MIXTURE	Proprietary
Inert Ingredients	MIXTURE	Proprietary
Water	7732-18-5	Proprietary
Tebuconazole	107534-96-3	Proprietary

**3. HAZARDS IDENTIFICATION**

**OSHA Hazard Classification: corrosive to eyes, skin and mucous membranes, liver and kidney toxin**

Routes of Entry: Inhalation, skin, eyes, ingestion  
Chemical Interactions: No known interactions  
Medical Conditions Aggravated: Pre-existing liver diseases, Pre-existing kidney disease

#### Human Threshold Response Data

Odor Threshold:  
Ethanolamine 2.6 ppm  
Irritation Threshold:  
Ethanolamine > 5.0 ppm

#### Hazardous Materials Identification System/National Fire Protection Association Classifications

<u>Hazard Ratings:</u>	<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
HMIS	3	0	0
NFPA	Not established		

#### Immediate (Acute) Health Effects

Inhalation Toxicity: No data  
Inhalation Irritation: High concentrations are moderately irritating to the eyes, nose, throat, and lungs.  
Skin Contact: Skin contact may cause moderate irritation consisting of transient redness and swelling. This irritant effect would not be expected to result in permanent damage.  
Skin Absorption: May be absorbed through skin, but it is unlikely that harmful effects will occur unless contact is prolonged, repeated, and extensive.  
Eye Contact: Severe irritation and/or burns can occur following exposure. Direct contact may cause impairment of vision and corneal damage. Rinsing of the eye should take place immediately.  
Ingestion Irritation: Ingestion may cause severe irritation of the gastrointestinal tract and may also cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy or diarrhea.  
Ingestion Toxicity: Moderately toxic if swallowed. Exposure to large quantities of this material may result in liver and kidney damage, based on animal studies.

Acute Target Organ Toxicity: Eyes, Liver, Kidneys, Skin

#### Prolonged (Chronic) Health Effects

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. This product contains a component that has been classified by the U.S. EPA as a "Group C" Carcinogen.  
Reproductive and Developmental Toxicity: No reproductive or developmental risk to humans is expected from exposure to this product.

Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.  
Inhalation: Prolonged or repeated exposure will cause more severe irritation and possibly lung damage. Prolonged or repeated inhalation may cause kidney and liver damage.  
Skin Contact: Prolonged or repeated exposure will cause more severe irritation and possibly permanent skin damage.  
Ingestion: Chronic ingestion of this product may cause severe irritation and possible corrosive effects.

Chronic Target Organ Toxicity: Liver, Kidneys, Eyes, Skin  
Supplemental Health Hazard Information: Short term exposures to skin (3 minutes to 1 hour) can produce mild to moderate irritation. Prolonged exposures (>1 hour to 4 hours) can produce severe irritation characterized by blister and scar formation.

#### **4. FIRST AID MEASURES**

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Inhalation: IF INHALED: Remove individual to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Skin Contact: IF ON SKIN: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Call a physician.

Eyes: IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids apart. Call a physician immediately.

Ingestion: IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

## **5. FIRE FIGHTING MEASURES**

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Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

### Flammable Properties

Flash Point: > 200 Deg. F.

Autoignition Temperature: Not applicable

Upper Flammable/Explosive Limit, % in air: Not applicable

Lower Flammable/Explosive Limit, % in air: Not applicable

Fire/Explosion Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death.

Extinguishing Media: Not Applicable. - Choose extinguishing media suitable for surrounding materials.

Fire Fighting Instructions: Response to this material requires the use of a full encapsulated suit and self-contained breathing apparatus (SCBA). Use water to cool containers.

Hazardous Combustion Products: Carbon monoxide, Carbon dioxide, Copper metal and copper oxides

## **6. ACCIDENTAL RELEASE MEASURES**

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Personal Protection for Emergency Situations: Response to this material requires the use of personal protective equipment to prevent contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, chemical splash-proof goggles, impervious clothing, and appropriate approved respiratory protection.

### Spill Mitigation Procedures

Air Release: Contain all liquid for treatment and/or disposal as a (potential) hazardous waste. Vapors may be suppressed by the use of water fog.

Water Release: This material is heavier than water. This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

Land Release: Dike spill area as soon as possible. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Do not place spill materials back in their original containers.

Additional Spill Information: Hazardous concentrations in air may be found in local spill area and immediately downwind. Utilize emergency response personal protection equipment prior to the start of any response. Stop source of spill as soon as possible and notify appropriate personnel. Containerize and label properly and remove to a secure location for proper disposal. Decontaminate all clothing and the spill area using a detergent and flush with large amounts of water. Evacuate all non-essential personnel. If a reportable quantity (RQ) is released into the environment, report to the National Response Center (1-800-424-8802), the State Emergency Planning Commission (SERC), the Local Emergency Planning Committee (LEPC) and/or your local fire department depending on availability.

## **7. HANDLING AND STORAGE**

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Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing (dust, vapor, mist, gas). Keep container closed when not in use. Use only with adequate ventilation.

Storage: Store in a cool dry ventilated location, away from oxidizers, heat, flame, or other incompatible conditions. Keep container(s) closed. Keep from freezing. Product becomes very viscous.

Shelf Life Limitations: One year

Incompatible Materials for Storage: strong oxidizing agents

Do Not Store At Temperatures Below: 40 Deg. F.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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Ventilation: Local exhaust ventilation or other engineering controls are necessary when handling or using this product.

### Protective Equipment for Routine Use of Product

Respiratory Protection: Wear a NIOSH approved respirator if levels above the exposure limits are possible.  
Respirator Type(s): A NIOSH approved air purifying respirator equipped with combination organic vapor and P100 high efficiency particulate filters. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin: A full impervious suit is recommended if exposure is possible to a large portion of the body. Wear impervious gloves, boots and apron. An eye wash and safety shower should be provided in the immediate work area.

Eyes: Use chemical goggles and a faceshield. Emergency eyewash should be provided in the immediate work area.

Protective Clothing Type: Neoprene, Butyl rubber, Nitrile

Other PPE: An eye wash and safety shower should be provided in the immediate work area.

### Exposure Limit Data

CHEMICAL NAME	CAS #	OSHA PEL / STEL	ACGIH LIMITS	AIHA WEEL
Ethanolamine	141-43-5	3 ppm TWA; 6 mg/m <sup>3</sup> TWA	6 ppm STEL 3 ppm TWA	Not Established

CHEMICAL NAME                      NIOSH Immediately Dangerous to Life or Health:  
Ethanolamine                      30 ppm IDLH

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical State:	liquid
Color:	blue
Odor	mild ammonia-like
Molecular Weight:	Not Applicable/Mixture
pH	9.3 - 11
Octanol/Water Coeff:	No data
Solubility in Water:	Soluble
Bulk Density:	1.122 g/cc
Specific Gravity:	1.22
Vapor Density:	applicable
Vapor Pressure:	No data
Evaporation Rate:	No data
Boiling Point:	107 Deg. C.
Freezing Point:	- 30 Deg. C.
Volatiles, % by vol.:	No data
VOC Content % w/w / lbs/gal:	6.68 / 0.68
HAP Content % w/w / lbs/gal:	0.00 / 0.00

## 10. STABILITY AND REACTIVITY

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Stability and Reactivity Summary:	Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge.
Reactive Properties:	Corrosive
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	High temperatures
Chemical Incompatibility:	strong oxidizing agents, strong acids, hydrazine, cellulose nitrates, sodium hypobromite, nitromethane, aluminum, zinc, acetylene
Hazardous Decomposition Products:	carbon dioxide, ammonia, carbon monoxide, oxides of nitrogen
Decomposition Temperature:	No data
Product May Be Unstable At Temperatures Above:	No data

## 11. TOXICOLOGICAL INFORMATION

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### Component Animal Toxicology

Oral LD50 value:	
Ethanolamine	Oral LD50: Rat = 1.7 g/kg
Dermal LD50 value:	
Ethanolamine	Dermal LD50 Rabbit Approximately 1 g/kg
Inhalation LC50 value:	
Ethanolamine	Inhalation LC50 (1h) Mouse > 4.8 mg/l Inhalation LC50 (4h) Mouse > 970 ppm

### Product Animal Toxicity:

Oral LD50 value:	Oral LD50: Rat = 880 mg/kg
Dermal LD50 value:	Dermal LD50 Rabbit > 2000 mg/kg
Inhalation LC50 value:	No data
Skin Irritation:	Dermal exposure can cause severe irritation characterized by redness and swelling. Prolonged skin exposure may cause scab formation and/or permanent damage.
Eye Irritation:	This material is expected to cause irreversible effects to the cornea with impairment of vision or corrosion to the eyes.

Skin Sensitization:	Negative skin sensitizer, guinea pig - Buehler Method
Reproductive and Developmental Toxicity:	Not known or reported to cause reproductive or developmental toxicity.
Component Data:	
Ethanalamine	This chemical has been tested in laboratory animals and no evidence of teratogenicity, embryotoxicity or fetotoxicity was seen.
Mutagenicity:	Not known or reported to be mutagenic.
Component Data:	
Ethanalamine	This material was non-mutagenic in the Ames test.
Carcinogenicity:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.
Component Data:	
Tebuconazole	This material has been classified by the U.S. EPA as a "Group C" Carcinogen (Suggestive Human Carcinogen), based on the observation of tumors in mouse livers. The relevance of tumors in the mouse liver has been questioned when assessing the risk to humans.

## **12. ECOLOGICAL INFORMATION**

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Overview:	<p>Toxic to fish and other aquatic organisms.</p> <p>Toxic to wildlife and domestic animals.</p> <p>Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.</p>
Ecological Toxicity Values:	
Ethanalamine	<p>Rainbow trout (<i>Salmo gairdneri</i>) 96 hr. LC50: = 150 mg/l (nominal, static).</p> <p>Mosquito fish (<i>Gambusia affinis</i>) 96 hr. LC50: = 337.5 mg/l (nominal, static).</p> <p>Daphnia magna, 24 hr. LC50: = 140 mg/l (nominal, static).</p> <p>Bluegill 96 hr. LC50: = 329.16 mg/l (nominal, static).</p> <p>Fathead minnow, 96 hr. LC50: = 2070 mg/l (measured, flow-through).</p> <p>Common shrimp (<i>Crangon crangon</i>) 48 hr. LC50: &gt; 100 mg/l (nominal, renewal).</p> <p>Goldfish 24 hr. LC50: = 190 mg/l.</p> <p>Brine shrimp 48 hr. LC50: = 7100 ppm (salt water)</p>

## **13. DISPOSAL CONSIDERATIONS**

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<p><b>CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.</b></p>
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Waste Disposal Summary: If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

Potential US EPA Waste Codes: Not applicable

Disposal Methods: As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Components subject to land ban restrictions: No components subject to land ban restrictions.

#### **14. TRANSPORT INFORMATION**

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THIS MATERIAL IS REGULATED AS A DOT HAZARDOUS MATERIAL.

DOT Description (49 CFR 172.101):

Land (U.S. DOT): Ethanolamine solution , 8 , UN2491 , PGIII

Air (IATA/ICAO): SAME AS LAND

Water (IMO): SAME AS LAND

Flash Point: (C) Not Applicable

Hazard Label/Placard: (Primary) CORROSIVE

Emergency Response Guide Number: 153

#### **15. REGULATORY INFORMATION**

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UNITED STATES:

Toxic Substances Control Act (TSCA): This substance is listed on the TSCA Inventory of Existing Chemical Substances.

Pesticide acceptance indication: US EPA Registration Number: EPA Reg # 62190-22  
Canadian Reg # 27132

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311/312 (40 CFR 370.2):

Health: Acute and Chronic

Physical: None

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

Not applicable

Reportable Quantity (40 CFR 302.4):

None listed

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

No 313-listed chemicals in this product

Clean Air Act Socmi:

Ethanolamine

Clean Air Act VOC Section 111

Ethanolamine

State Right-to-Know Regulations Status of Ingredients

Pennsylvania: Ethanol, 2-amino-

New Jersey: Ethanolamine

Massachusetts: Ethanolamine

## 16. OTHER INFORMATION

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MSDS REVISION Revised to meet the ANSI standard of 16 sections.

STATUS:

Section(s) Revised: 6

MAJOR REFERENCES: Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.