Arch Treatment Technologies, Inc.

MATERIAL SAFETY DATA SHEET

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: **µCu**
EPA Registration Number: 75506-11

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Treatment Technologies, Inc.
1955 Lake Park Drive, Suite 100
Smyrna, GA 30080

REVISION DATE:	01/28/2008
SUPERCEDES:	09/11/2007
MSDS Number:	000000004402
SYNONYMS:	None
CHEMICAL FAMILY:	Mixture
DESCRIPTION / USE:	General-use pesticide for wood preservative.
FORMULA:	None established

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	**Mild skin irritant, Moderate to Severe Eye Irritant, Mucous membrane irritant, Causes Methemoglobin formation**

Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	Pre-existing skin disorders.

Human Threshold Response Data

Odor Threshold	Not established for product.
Irritation Threshold	Not established for product.

Hazardous Materials Identification System / National Fire Protection Association Classifications

Hazard Ratings :	Health	Flammability	Physical / Instability	PPI / Special hazard.
HMIS	2	1	0	
NFPA	2	1	0	

Immediate (Acute) Health Effects

Inhalation Toxicity:	Inhalation of mist or vapor may cause irritation to the mucous membranes of the respiratory tract. Any irritation would be transient with no permanent damage expected. Inhalation of high concentrations may result in methemoglobin formation.
Skin Toxicity:	Skin contact may cause mild reversible irritation consisting of transient redness. This irritant effect would not be expected to result in permanent damage.
Eye Toxicity:	May cause moderate to severe irritation, consisting of redness, swelling, and mucous membrane discharge to the conjunctiva. No corneal involvement or visual impairment is expected.
Ingestion Toxicity:	Slightly toxic if swallowed. Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea. Ingestion of this product may result in methemoglobin formation.
Acute Target Organ Toxicity:	This product is moderately to severely irritating to the eyes, slightly irritating to the skin and upon inhalation, may cause moderate irritation to mucous membranes of the respiratory tract. Ingestion may cause gastrointestinal discomfort., Inhalation and ingestion may cause methemoglobinemia (the reduced ability of the blood to carry oxygen to body tissues)

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.
Reproductive and Developmental Toxicity:	There are no known or reported effects on reproductive function or fetal development.
Inhalation:	There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.
Skin Contact:	Prolonged or repeated dermal contact may cause redness, a burning sensation and drying and cracking of the skin.
Skin Absorption:	Normal industrial handling and use of this product is not expected to cause any adverse effects from dermal exposure. However, prolonged or repeated contact, especially with abraded skin, may result in the production of Methemoglobinemia, leading to cyanosis.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.
Sensitization:	This material is not known or reported to be a skin or respiratory sensitizer.
Chronic Target Organ Toxicity:	This product has not been tested. However, chronic (repeated) exposures to this product would be expected to produce similar effects as seen from acute exposures.
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME	CAS #	% RANGE
BASIC COPPER CARBONATE	12069-69-1	55.87 - 59.33

Sodium Nitrite	7632-00-0	0.9 - 2.5
Dispersant	PROPRIETARY	

4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Notes to Physician:	Test for and if necessary treat methemoglobinemia.

5. FIRE FIGHTING MEASURES

Flammability Summary (OSHA):	Combustible above 93 deg. C / 200 deg. F.
Flammable Properties	
Flash Point:	> 100 DEG°C / 212 DEG°F
Autoignition Temperature:	No data.
Fire / Explosion Hazards:	Material may be ignited if preheated to temperatures above the flash point in the presence of a source of ignition.
Extinguishing Media:	Use dry chemical, water fog, carbon dioxide (CO2), or foam.
Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion., Hazardous combustion/decomposition products may include but are not limited to:, Copper metal and copper oxides, Carbon monoxide, Carbon dioxide, Silicon dioxide, Formaldehyde
Upper Flammable / Explosive Limit, % in air:	No data.

Lower Flammable / Explosive Limit, % in air: No data.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations:	Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.
Spill Mitigation Procedures	
Air Release:	Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog. Contain all liquids for treatment or disposal.
Water Release:	This material is dispersible in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Contain all liquids for treatment or disposal.
Land Release:	Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Contain all liquids for treatment or disposal.
Additional Spill Information :	Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

7. HANDLING AND STORAGE

Handling:	An eye wash and safety shower should be provided in the immediate work area. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Do not take internally. Avoid contact with skin, eyes and clothing by wearing proper protective equipment. Upon contact with skin or eyes, wash off with water. Label containers and keep them tightly closed when not in use. Wash hands thoroughly before eating, drinking, using tobacco products, and/or using restrooms.
Storage:	Do not freeze. Store in a cool dry ventilated location, away from oxidizers, heat, flame, or other incompatible conditions. Keep container(s) closed. Do not store near feed, food, or within the reach of children. Keep product tightly sealed in original containers.
Incompatible Materials for Storage:	strong acids and bases oxidizers

Empty Container Warning: 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.Offer empty container for recycling or dispose of in accordance with all federal, state, or local requirements.If empty containers are disposed (not recycled), containers must be triple rinsed to ensure removal of all product. All rinse water should always be directed into a sump or pit that is pumped back to the makeup water tank. All product labels should be removed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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.
Respirator Type : Wear a NIOSH approved N100 particulate respirator.
Skin Protection : Wear impervious gloves to avoid skin contact. A safety shower should be provided in the immediate work area.
Eye Protection: Use chemical goggles. Emergency eyewash should be provided in the immediate work area.
Protective Clothing Type: Impervious

Exposure Limit Data

CHEMICAL NAME	CAS #	Name of Limit	Exposure
BASIC COPPER CARBONATE	12069-69-1	NIOSH-IDLH	100 mg/m3
.		ACGIH	0.2 mg/m3 TWA Fume.(Value for copper fume.)
.		OSHA Z1	0.1 mg/m3 PEL Fume.(Value for copper fume.)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	Mixture
Color:	light, green
Odor:	mild
Molecular Weight:	None established
Specific Gravity :	1.80 - 1.86
pH :	8.0 - 8.5
Boiling Point:	100 DEG°C 212 DEG°F
Freezing Point:	4 DEG°C / 39 DEG°F
Melting Point:	No data
Density:	1.81g/ml

Vapor Pressure:	No data.
Vapor Density:	No data
Viscosity:	500.000 - 700.000 CPS
Fat Solubility:	No data
Solubility in Water:	dispersible
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	The substance has no oxidizing properties
Volatiles, % by vol.:	40.2%
VOC Content	22.5 wt%/wt EPA Method 24
HAP Content	No data

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions. Product will not undergo hazardous polymerization.
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures., Avoid freezing.
Chemical Incompatibility:	strong acids, strong bases, oxidizers
Hazardous Decomposition Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Decomposition Temperature:	No data

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

BASIC COPPER CARBONATE	LD50 = 1,350 mg/kg Rat
Sodium Nitrite	LD50 = 180 mg/kg Rat

Dermal LD50 value:

BASIC COPPER CARBONATE	No data
Sodium Nitrite	No data

Inhalation LC50 value:

BASIC COPPER CARBONATE	No data
Sodium Nitrite	Inhalation LC50 4 h = 0.0055 MG/L Rat

Product Animal Toxicity

Oral LD50 value:	LD50 Believed to be approximately 2,200 mg/kg Rat
Dermal LD50 value:	No data
Inhalation LC50 value:	No data
Skin Irritation:	This material is expected to be slightly irritating.
Eye Irritation:	This material is expected to be moderately to severely irritating.
Skin Sensitization:	This material is not known or reported to be a skin or respiratory sensitizer.
Acute Toxicity:	This product is moderately to severely irritating to the eyes, slightly irritating to the skin and upon inhalation, may cause moderate irritation to mucous membranes of

the respiratory tract. Ingestion may cause gastrointestinal discomfort.Ingestion of large quantities of this material may result in liver damage, based on animal studies.

Subchronic / Chronic Toxicity: This product has not been tested. However, chronic (repeated) exposures to this product would be expected to produce similar effects as seen from acute exposures.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Sodium Nitrite: This chemical has been tested in laboratory animals and there was no evidence of reproductive toxicity or teratogenicity.

Mutagenicity: Not known or reported to be mutagenic.

Sodium Nitrite: This material has been shown to be non-mutagenic in the majority of a battery of assays. Not expected to be a mutagenic hazard.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

Sodium Nitrite: This material did not cause cancer in long-term animal studies.

12. ECOLOGICAL INFORMATION

Overview: Toxic to fish and other aquatic organisms., Toxic to wildlife and domestic animals., 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.

13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE 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.

Waste Disposal Summary : If this product becomes a waste, it will be a nonhazardous waste.

Potential US EPA Waste Codes : Not applicable

14. TRANSPORT INFORMATION

Land (US DOT): NOT REGULATED AS A DOT HAZARDOUS MATERIAL
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,

Flash Point: 100.00 DEG°C >
Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,
Emergency Response Guide Number: Not applicable

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA): This is an EPA registered pesticide.
EPA Pesticide Registration Number: 75506-11

FIFRA Listing of Pesticide Chemicals (40 CFR 180): This product is regulated under the Federal Insecticide, Fungicide and Rodenticide Act. It must be used for purposes consistent with its labeling.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):
Health Immediate (Acute) Health Hazard
Physical None

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

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:
SARA III Threshold Planning Quantity: None established

Reportable Quantity (49 CFR 172.101, Appendix):
CERCLA Reportable quantity: SODIUM NITRITE
Value: 100lbs

SARA III Reportable quantity: None established

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

SARA III De minimis concentration: COPPER COMPOUNDS (WITH EXCEPTIONS)
Value: 1.0%
SODIUM NITRITE
Value: 1.0%

Clean Air Act Toxic ARP Section 112r:
CAA 112R None established

Clean Air Act Socmi:
HON SOC None established

Clean Air Act VOC Section 111:
CAA 111 None established

Clean Air Act Haz. Air Pollutants Section 112:

CAA	None established
CAA 112I	None established
CAA AP	None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
7632-00-0	Sodium Nitrite

PENN RTK

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)
PENN RTK
08 1989
NITROUS ACID, SODIUM SALT

New Jersey:

CAS #	COMPONENT NAME
12069-69-1	BASIC COPPER CARBONATE
7632-00-0	Sodium Nitrite

NJ RTK

US. New Jersey Community Right-To-Know Survey, Table A: NJ Environmental Hazardous Substances [EHS] List (N.J. Admin. Code Title 7 Section 1G-2.1)
NJ RTK
2001
Substance no. 2215
COPPER COMPOUNDS [EXCEPT: C.I. PIGMENT BLUE 15, C.I. PIGMENT GREEN 7, AND C.I. PIGMENT GREEN 36]

US. New Jersey Community Right-To-Know Survey, Table A: NJ Environmental Hazardous Substances [EHS] List (N.J. Admin. Code Title 7 Section 1G-2.1)
NJ RTK
10 2006
Substance no. 2258
SODIUM NITRITE

Massachusetts:

CAS #	COMPONENT NAME
7632-00-0	Sodium Nitrite

MASS RTK

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)
MASS RTK
04 1993
SODIUM NITRITE

California Proposition 65:

CAS #	COMPONENT NAME

US CA CRT None established

US CA65CRT	None established

WHMIS Hazard Classification:
WHMIS

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)
WHMIS
01 1988
Threshold limits: 1%
English List no. 428
COPPER(II) CARBONATE HYDROXIDE

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)
WHMIS
01 1988
Threshold limits: 1%
English List no. 1453
SODIUM NITRITE

16. OTHER INFORMATION

MSDS REVISION STATUS :	Revised to meet the ANSI standard of 16 sections
SECTIONS REVISED:	3
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. .