

MATERIAL SAFETY DATA SHEET

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL MSDS QUESTIONS & REQUESTS, CALL:

1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)

1-800-424-9300 (OUTSIDE

USA: 1-703-527-3887) 1-800-511-MSDS (OUTSIDE

USA: 1-423-780-2347)

PRODUCT NAME: BAQUACIL Metal Control

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc. 501 Merritt 7 PO Box 5204 Norwalk, CT 06856-5204 REVISION DATE: 04/10/2008

SUPERCEDES: 07/09/2004

MSDS Number: 100000002181

SYNONYMS: Tetrasodium EDTA, tetrahydrate

CHEMICAL FAMILY: Tetrasodium salt
DESCRIPTION / USE: Chelating agent
FORMULA: None established

2. HAZARDS IDENTIFICATION

OSHA Hazard
Classification:

Severe eye irritant, Mild skin and mucous membrane irritant

Routes of Entry: Inhalation, skin, eyes, ingestion

Chemical Interactions:

Medical Conditions Aggravated:

No known interactions

None known or reported

Human Threshold Response Data

Odor Threshold Not established for product.

Irritation Threshold Not established for product.

<u>Hazardous Materials Identification System / National Fire Protection Association Classifications</u>

<u>Health</u>	<u>Flammability</u>	Physical / Instability	PPI / Special
			<u>hazard.</u>
2	1	0	
2	1	0	
	<u>Health</u> 2 2	Health Flammability 2 1 2 1	HealthFlammabilityPhysical / Instability210210

Immediate (Acute) Health Effects

Inhalation Toxicity: Inhalation of dust may cause irritation to the mucous membranes of the

respiratory tract. Not expected to be toxic by inhalation.

Skin Toxicity: Skin contact may cause minor irritation consisting of transient redness

and/or swelling. This irritant effect would not be expected to result in

permanent damage.

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Eye Toxicity: May cause severe irritation, consisting of redness, swelling, and mucous

membrane discharge to the conjunctiva. Any visual impairment or corneal damage would be expected to clear within several days.

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.

Acute Target Organ Toxicity: Severely irritating to eyes and causes slight (mild) skin and mucous

membrane irritation. Ingestion may cause gastrointestinal discomfort.

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. Chemicals of similar structure have been shown not to cause cancer in laboratory

animals.

Reproductive and EDTA and its sodium salts have been shown to cause birth defects in

Developmental Toxicity: laboratory animals only at relatively high oral dose levels that were

maternally toxic. These effects are likely associated with zinc deficiency

due to metal chelation.

Inhalation: There are no known or reported effects from chronic exposure except for

effects similar to those experienced from acute exposure.

Skin Contact: There are no known or reported effects from chronic exposure except for

effects (if any) similar to those experienced from acute exposure.

Skin Absorption: This product is poorly absorbed through intact skin. However, it is

absorbed through abraded or burned skin.

Ingestion: There are no known or reported effects from chronic ingestion except for

effects similar to those experienced from single exposure.

Sensitization: This material tested negative for skin sensitization in animals.

Chronic Target Organ Toxicity: This product has not been tested. However, chronic (repeated)

exposures to a similarly structured product revealed no substance

related toxic effects.

Supplemental Health Hazard

Information:

No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

 CAS OR CHEMICAL NAME
 CAS #
 % RANGE

 Water
 7732-18-5
 15 - 17

 Tetrasodium EDTA
 64-02-8
 83 - 85

4. FIRST AID MEASURES

Inhalation: IF INHALED: Remove individual to fresh air. Seek medical attention if breathing

becomes difficult or if respiratory irritation develops.

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Skin Contact: IF ON SKIN: Flush skin with water for 15 minutes. Take off all contaminated

clothing. Seek medical attention if irritation develops.

Eye Contact: IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes.

Seek medical attention 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

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

Flammable Properties

Flash Point: Not applicable

Autoignition Temperature: 200 DEG°C / 392 DEG°F

Fire / Explosion Hazards: Dust in air can be an explosion hazard.

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. Use water to cool

containers.

Hazardous Combustion Products: During a fire, irritating and highly toxic gases may be generated by

thermal decomposition or combustion.

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

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: Contain all solids for treatment or disposal.

Water Release: 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. Contain all solids for treatment or disposal.

Land Release: Sweep up and place in suitable clean, dry containers for reclamation

or later disposal. Do not place spill materials back in their original containers. Dusting from this product could occur. Contain all solids

for treatment or disposal.

Additional Spill Information: 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 nonessential personnel. Dispose of spill residues per guidelines under

Section 13, Disposal Consideration.

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7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing.

Upon contact with skin or eyes, wash off with water. Avoid inhalation

of dust and fumes.

Storage: Store in a cool, dry and well ventilated place. Isolate from

incompatible materials. Avoid creating dusts.

Incompatible Materials for Storage: Strong oxidizing agents aluminum zinc copper & copper alloys

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: No exposure limits exist for the constituents of this product.Local exhaust

ventilation is recommended if significant dusting occurs. Otherwise use

general exhaust ventilation.

Protective Equipment for Routine Use of Product

Respiratory Protection: Respiratory protection not normally needed. Wear a NIOSH approved

respirator if dusts are created.

Respirator Type: Wear a NIOSH approved N95 respirator. Skin Protection: Wear impervious gloves to avoid skin contact.

Eye Protection: Use chemical goggles.

Protective Clothing Type: Impervious

General Protective Emergency

Measures:

Emergency eyewash should be provided in the immediate work area.

Exposure Limit Data

CHEMICAL NAME CAS # Name of Limit Exposure

No Data Found

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solid Form Powder

Color: White crystalline

Odor: None
Molecular Weight: No data
Specific Gravity: No data

pH: 10.5 - 11.5 1% solution

Boiling Point: Not applicable Freezing Point: Not applicable Melting Point: Decomposes

Density: 55.0000 - 60.0000lb/ft3

Vapor Pressure: < 1.33 hPa Vapor Density: Not applicable

Viscosity: No data
Fat Solubility: No data
Solubility in Water: Soluble
Partition coefficient n- No data

octanol/water:

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Evaporation Rate: No data
Oxidizing: No data
Volatiles, % by vol.: No data
VOC Content No data
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., Contact with incompatible substances

Chemical Incompatibility: Strong oxidizing agents, aluminum, copper, copper alloys, zinc,

nickel

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, nitrogen oxides, Ammonia,

sodium hydroxide

Decomposition Temperature: 200 DEG°C - , 392 DEG°F-

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

Tetrasodium EDTA LD50 1,700 - 2,000 mg/kg Rat

<u>Dermal LD50 value</u>:

Tetrasodium EDTA No data

<u>Inhalation LC50 value</u>:

Tetrasodium EDTA Rats exposed for 8 hours to an unknown concentration of the test substance

resulted in no deaths and no clinical signs of toxicity observed in the animals.

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be 2,000-2,400 mg/kg. Rat

<u>Dermal LD50 value</u>: No data <u>Inhalation LC50</u> No data

value:

Skin Irritation: May cause mild skin irritation.

Eye Irritation: Expected to be severely irritating.

Skin Sensitization: Negative skin sensitizer, guinea pig - Magnusson-Kligman method.

Acute Toxicity: Severely irritating to eyes and causes slight (mild) skin and mucous membrane

irritation. Ingestion may cause gastrointestinal discomfort.

Subchronic / Chronic This product has not been tested. However, chronic (repeated) exposures to a

Toxicity: similarly structured product revealed no substance related toxic effects.

Tetrasodium EDTA This product has not been tested. However, chronic

(repeated) exposures to a similarly structured product

revealed no substance related toxic effects.

Reproductive and

Developmental Toxicity:

Not known or reported to cause reproductive or developmental toxicity.

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Tetrasodium EDTA EDTA and its sodium salts have been shown to cause

birth defects in laboratory animals only at relatively high oral dose levels that were maternally toxic. These effects are likely associated with zinc deficiency due to

metal chelation.

Mutagenicity: Not known or reported to be mutagenic.

Tetrasodium EDTA This product has been tested for mutagenicity. Tests

revealed both positive and negative results. Based on the weight of evidence, we judge this product NOT 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.

Tetrasodium EDTA

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

by any reference source including IARC, OSHA, NTP o EPA. Chemicals of similar structure have been shown

not to cause cancer in laboratory animals.

12. ECOLOGICAL INFORMATION

Overview: Practically non- toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: Tetrasodium EDTA

Bluegill - (nominal, static). 96 h LC50 = 486 mg/l

Daphnia magna, - (measured) 24 h EC50= 610 mg/l

Daphnia magna, - (nominal, static). 24 h EC50= 1,033 mg/l

Green algae (Scenedesmus - (nominal, static). 7 day toxicity threshold (population growth)

quadricauda), 11 mg/l

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 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.

Disposal Methods: As a nonhazardous waste, it should be disposed of in accordance

with local, state and federal regulations.

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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: Not applicable

Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,

Emergency Response Guide Number: Not applicable

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA): The components of this product are listed on the TSCA

Inventory of Existing Chemical Substances.

EPA Pesticide Registration Number: None established

FIFRA Listing of Pesticide Chemicals

(40 CFR 180):

Not registered in the US under FIFRA.

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:

Reportable Quantity (49 CFR 172.101, Appendix):

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

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 AP None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS # COMPONENT NAME

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New Jersey:

CAS# **COMPONENT NAME**

Massachusetts:

CAS# COMPONENT NAME

California Proposition 65:

CAS# **COMPONENT NAME**

WHMIS Hazard Classification:

16. OTHER INFORMATION

MSDS REVISION STATUS: Revised to meet the ANSI standard of 16 sections

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. .

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