

Material Safety Data Sheet

BAQUA PLUS OXIDIZER INCREASER GRANULAR

Version 1.6

Print Date 02/26/2005

Issue Date 08/06/2003

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material Name : BAQUA PLUS OXIDIZER INCREASER GRANULAR
BAQUA PLUS Granular
BAQUACIL Ultra Oxidizer Increaser
BAQUACIL Ultra System Start Up Kit - Step 2

Product Code :
MSDS Number : 150000020251

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

Telephone : 1-800-511-MSDS
Telefax :
Emergency telephone : (800) 654-6911 Medical Emergency

For a transport accident or leak, fire or major spill, call **CHEMICAL EMERGENCY RESPONSE CENTER** (800) 424-9300.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS*

<u>CAS No. / NJRTK No.*</u>	<u>Wt %</u>	<u>Components</u>
7775-19-1	1.00 - 3.00	Sodium metaborate
10332-33-9	> 95.00	Sodium perborate monohydrate

*Ingredients not precisely identified are either proprietary or non-hazardous; the NJRTK number for the proprietary component(s) is 510390490 (Arch Chemicals) or 043574982 (NeoResins) followed by the 4/5 digit code above.

SECTION 3. HAZARDS IDENTIFICATION**

**As defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. See Section 8 for exposure guidelines & Section 11 for toxicology and ingredient specific information.

Emergency Overview

**WHITE CRYSTALLINE SOLID; NO ODOR;
OXIDIZER. EYE IRRITANT. SKIN IRRITANT. RESPIRATORY IRRITANT.**

Potential Health Hazards

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Eyes	This product is a severe eye irritant based on animal studies.
Skin	This product is a skin irritant based on animal studies. The acute dermal toxicity of this product is greater than 1000 mg/kg. This product is not toxic by skin absorption. This product did not induce skin sensitization in an animal study. This product is unlikely to induce skin sensitization in humans.
Ingestion	The acute oral toxicity of this material is between 500 and 5000 mg/kg. Relative to other materials, this material is classified as slightly toxic by ingestion. In humans, irritation or chemical burns of the mouth, pharynx, esophagus, and stomach can develop following ingestion of this material. Injury may be severe and cause death.
Inhalation	Particulates of this material will probably irritate eyes, nose, and respiratory passages.

SECTION 4. FIRST AID MEASURES

Inhalation

Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

Skin contact

Wash off of skin with plenty of soap and water. If redness, itching or burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

Eye contact

Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

Ingestion

DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

Note to physician

Product may decompose exothermically at elevated temperatures and cause thermal burns.

SECTION 5. FIRE FIGHTING MEASURES

Flammable Properties

Does not flash

Lower explosion limit

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Method: No Data

Upper explosion limit

Method: No Data

Extinguishing agents

This oxidizer is not flammable in itself but will intensify a fire by yielding oxygen. Extinguish small fires using water sprays. For large fires, use massive quantities of water to dilute the burning material. Use water sprays to cool fire-exposed containers. Do not use dry chemical or foam extinguishers on the oxidizer as they may react with it or leave reactive residues. Do not put water onto hot/decomposing material contained in vessels.

Specific hazards during fire fighting

Oxidizer. May be capable of initiating and supporting a fire in surrounding combustibles.

Special protective equipment for fire-fighters

Self-contained breathing apparatus with full facepiece and protective clothing if involved in a fire of other materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Product may decompose exothermically at elevated temperatures. If product is decomposing do not handle product.

Personal precautions

Wear skin, eye, and respiratory protection during cleanup.

Methods for cleaning up

Recover material into a chemical waste container. Do not mix or contaminate with incompatible materials. Cover container and remove from work area.

SECTION 7. HANDLING AND STORAGE

Handling

Prevent skin and eye contact.

Follow procedures specified in the National Fire Protection Association Codes and Standards for handling oxidizing materials.

Avoid breathing particulates.

Requirements for storage areas and containers

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Store below 104°F (40°C) to assure quality performance. Thermal decomposition will occur above 122°F (50°C) with the significant release of oxygen. Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventilated area away from direct sunlight, flammable materials and sources of heat or flame. Exercise due caution to prevent water contact during storage or damage to or leakage from the container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

Use permitted ventilation adequate to maintain safe levels.

Eye protection

Wear chemical tight goggles and full faceshield.

Skin and body protection

Wear impervious gloves and apron.
Remove contaminated clothing and wash before rewearing.
Wash separately from other laundry.

Respiratory protection

Use NIOSH certified full facepiece respirator for dusts where exposure to the dust may occur.

Hygienic measures

Eyewash station and safety shower in work area.

Occupational

No ACGIH TLV or OSHA PEL assigned to this product. Minimize exposure in accordance with good hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Solid
Color : White crystalline
Odor : No
pH : 10.0 (1.5% solution)
Melting point : Remarks: Decomposes

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Water solubility : (15 g/L at 20°C (68°F))

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Avoid direct sunlight. Keep away from heat, humidity and combustible materials.
Elevated temperature causes hazardous decomposition.

Materials to avoid : Water.
Acids.
Bases.
Heavy metal salts.
Reducing agents.
Organic materials.
Flammable substances.

Hazardous decomposition products : Oxygen.
Steam.
Heat.
Exothermic decomposition: Potential products during decomposition from exposure to high temperatures can be hydrogen peroxide, sodium hydroxide, water vapor (steam), oxygen and boric acid. Upon cool down, the remaining products could potentially be sodium hydroxide, boric acid and any residual sodium perborate.

Thermal decomposition : 50.00 °C (122.00 °F)

Hazardous reactions : Hazardous polymerization is not known to occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : 770 - 2,100 mg/kg
based on animal studies.

Acute dermal toxicity : > 2,000 mg/kg based on animal studies.

Skin irritation : Skin irritant based on animal studies.

Eye irritation : Severe eye irritant based on animal studies.

: Skin: not an animal skin sensitizer
based on animal studies.

Sensitization

Repeated dose toxicity :

Carcinogenicity:

NTP N.D.

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IARC N.D.
OSHA N.D.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Additional Information : LC50
 Species: Fish
 Dose: 51 mg/l
 Exposure time: 96 h
 Method:

Additional Information : EC50
 Species: Daphnia
 Dose: 11 mg/l
 Exposure time: 48 h
 Method:

Toxicity to algae :
 Species: Green Algae
 Dose: 12 mg/l
 Exposure time: 96 h

Additional ecotoxicological : Chronic ecotoxicity: Data on boron content. Sodium perborate
remarks monohydrate contains 10.83% boron. Terrestrial plants: Sensitive
 plants - LOEC: 0.3 - 1 mg/L; Intermediate plants - LOEC: 1-2 mg/L;
 Tolerant plants - LOEC: 2-4 mg/L. Sensitive plants: citrus, stone fruit,
 nut trees.

Environmental fate : Significant hydrolysis in water. Degrades to boric acid, borate and
 hydrogen peroxide.

Other : No bioaccumulation occurs. Aerobic, ready biodegradability/closed
 bottle (48 hours): 85%, rapid biodegradation. Harmful for aquatic
 organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal method : This material is toxic to fish and vegetation. Do not contaminate
 waterways by cleaning of equipment or by disposal of wastes. Untreated
 effluent should not be discharged where it will drain into lakes, streams,
 or ponds. Do not drain onto plants or grasses.
 : Discarded product may be a hazardous waste under RCRA. TCLP

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should be completed prior to disposal.

Container disposal : Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

SECTION 14. TRANSPORT INFORMATION

Proper shipping name : Oxidizing solid, n.o.s. (contains sodium perborate monohydrate)
UN No. : UN1479
Special provision :
Class : 5.1
Additional class :
Additional class :
Packaging Group : 3

SECTION 15. REGULATORY INFORMATION

TSCA (TSCA Substances Control Act) : All ingredients are on the TSCA Chemical Substances Inventory.
CEPA (Canadian Environmental Protection Act) : CEPA (Canadian Environmental Protection Act): All ingredients are on the DSL (Domestic Substances List).
SARA Title III (Emergency Planning and Community Right-To-Know Act) : This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.
California Proposition 65 : This product is not known to contain any chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

SECTION 16. OTHER INFORMATION

Further information:

We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.*

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NFPA Rating

Health : 2
Fire : 0
Reactivity : 1
Special : 0

HMIS Rating

Health : 2
Fire : 0
Reactivity : 1
* * * :

*This information is intended solely for the use of individuals trained in the particular hazard rating system.
**See appropriate MSDS section.

THE PRODUCT NAMES LISTED ARE TRADEMARKS OF ARCH CHEMICALS, INC. OR ITS AFFILIATED COMPANIES.

The information herein is given in good faith but no warranty, expressed or implied, is made.

This MSDS was prepared by the Safety, Health and Environment Group of at 501 Merritt, Norwalk, CT 06856. For further questions, call during regular business hours at 1-800-511-MSDS