

Material Safety Data

SECTION 1

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PAGE 1 OF 5

Product Name: Maintain pH Increaser, Aquamate pH PLUS (pH Plus) pH Increaser

PRODUCT ID: 5000

SYNONYMS: SODA ASH, DISODIUM CARBONATE, SODIUM CARBONATE, AND ANHYDROUS

DATE: 01-23-2003

MOLECULAR FORMULA: NA2CO3

SUPPLIER: BALECO INTERNATIONAL INC.

3200 STATELINE RD NORTH BEND, OH 45052 EMERGENCY PHONE NUMBERS 24-HOUR PHONE NUMBER: 517-636-4400 CHEMTREC: 1-800-424-9300 INFORMATION (304)746-3000

SECTION 2

COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME: Sodium Carbonate

CAS NUMBER: 497-19-8

PERCENTAGE RANGE: 99.8-100%

HAZARDOUS PER 29CFR 1910.1200: Yes EXPOSURE HAZARDS: None Established

SECTION 3

HAZARDS IDENTIFICATION

A. PHYSICAL APPEARANCE AND ODOR: White granular solid, odorless

WARNING STATEMENTS: Warning: Causes Eye Irritation. May Cause Skin Irritation.

B. POTENTIAL HEALTH EFFECTS

ACUTE EYE: Causes irritation.

ACUTE SKIN: May cause irritation, redness, and swelling.

ACUTE INHALATION: May cause upper respiratory tract irritation, lung irritation.
ACUTE INGESTION: Low acute oral toxicity. May cause nausea, vomiting, diarrhea,

irritation, corrosion.

CHRONIC EFFECTS: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

SECTION 4

FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:

EYE EXPOSURE: Immediately flush with water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.

SKIN EXPOSURE: In case of contact, immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

INHALATION: Remove victim to fresh air and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek immediate medical attention.

INGESTION: If victim is conscious and alert, give 1-2 glasses of water to drink. DO NOT give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical. Seek immediate medical attention.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

NOTES TO PHYSICIAN: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5

FIRE FIGHTING MEASURES

FIRE HAZARD DATA:

FLASH POINT: Non-combustible

EXTINGUISHING MEDIA: Not combustible. Use extinguishing method suitable for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not applicable

HAZARDOUS DECOMPOSITION MATERIALS (UNDER FIRE CONDITIONS): Carbon dioxide

SECTION 6

ACCIDENTAL RELEASE MEASURES

EVACUATION PROCEDURES AND SAFETY: Ventilate closed spaces before entering. Wear appropriate protective gear for situation. See Personal Protection information in Section 8.

CONTAINMENT OF SPILL: Follow procedure described below under Cleanup and Disposal of Spill. Cleanup and Disposal of Spill: Scrape up and place in appropriate closed container (see Section 7: Handling and Storage). Collect washings for disposal. Decontaminate tools and equipment following cleanup. Clean up residual material by washing area with water. Avoid creation of dusty conditions.

ENVIRONMENTAL AND REGULATORY REPORTING: Do not flush to drain. If spilled on the ground, the affected area should be scraped clean and placed in an appropriate container for disposal. Prevent material form entering public sewer system or any waterways. Large spills should be handled according to a predetermined plan. For assistance in developing a plan contact with the Technical Service Department using the Product Information phone number in Section 1.

SECTION 7

HANDLING AND STORAGE

MINIMUM / MAXIMUM STORAGE TEMPERATURES: Not Available

HANDLING: Do not take internally. Avoid contact with skin, eyes and clothing. Avoid breathing dust.

STORAGE: Store in an area that is cool, dry, well ventilated.

SHELF LIFE LIMITATIONS: Unlimited

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

INTRODUCTORY REMARKS: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not

overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

EXPOSURE GUIDELINES: Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting OSHA requirements. The following limits (AGGIH, OSHA and other) apply to this material, where, if indicated, S=skin and C=ceiling limit:

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION

NOTES

TWA

STEL

OSHA

5 mg/cu m

ENGINEERING CONTROLS: Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures.

RESPIRATORY PROTECTION: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard (29 CFR 1910.134) and/or ANSI Z88.2 recommendations. Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by OSHA / ANSI: Air purifying (half-mask / full face) respirator with cartridges / canister approved for use against dusts, mists and fumes.

EYE / FACE PROTECTION: Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

SKIN PROTECTION: Skin contact should be minimized through use of gloves and suitable long sleeved clothing (i.e. shirts and pants). Consideration must be given both to durability as well as permeation resistance.

WORK PRACTICE CONTROLS: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- Wash exposed skin promptly to remove accidental splashes of contact with this material.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL APPEARANCE: White granular solid.

ODOR: Odorless pH: 11.4 (1% solution)

SPECIFIC GRAVITY: 2.509 at 20°C (68° F) WATER SOLUBILITY: 33.2% Maximum MELTING POINT: 851°C (1564° F) BOILING POINT: Decomposes FREZZING POINT: 851 C (1564 F)

VAPOR PRESSURE: N/A VAPOR DENSITY: N/A

BALECO INT'L:

5000 SODA ASH (SODIUM CARBONATE, ANHYDROUS)

page 4 of 5

EVAPORATION RATE: N/A

DENSITY: DENSE GRADES = 0.86 - 1.12; LIGHT GRADES = 0.70 - 0.09

SPECIFIC GRAVITY: 2.509 (water = 1)
MOLECULAR WEIGHT: 105.99

SECTION 10

STABILITY AND REACTIVITY

CHEMICAL STABILITY: This material is stable under normal handling and storage conditions described in Section 7

CONDITIONS TO AVOID: Extreme Heat. Contact with acids except under controlled conditions. **MATERIALS / CHEMICALS TO BE AVOIDED:** Aluminum, Fluorine, Humid Air, Moisture, Sulfuric Acid, Acids, Magnesium, Phosphorus Pentoxide, Molten Lithium.

DECOMPOSITION TEMPERATURE RANGE: 851°C (1564° F)

THE FOLLOWING HAZARDOUS DECOMPOSITION PRODUCTS MIGHT BE EXPECTED:

DECOMPOSITION TYPE: Thermal Carbon Dioxide **HAZARDOUS POLYMERIZATION:** Will Not Occur.

AVOID THE FOLLOWING TO INHIBIT HAZARDOUS POLYMERIZATION: Not Applicable

SECTION 11

TOXICOLOGICAL INFORMATION

ACUTE EYE IRRITATION: Toxicological Information and Interpretation

Eye - Eye Irritation, 50 mg, Rabbit. Severely Irritating.

ACUTE SKIN IRRITATION: Toxicological Information and Interpretation

Skin - Skin Irritation, Rabbit. Mildly Irritating.

ACUTE DERMAL TOXICITY: No Test Data Found For Product.

ACUTE RESPIRATORY IRRITATION: No Test Data Found For Product.

ACUTE INHALATION TOXICITY: Toxicological Information and Interpretation

LC50 - Lethal Concentration. 50% Of Test Species, 2.3 mg/l m/2hr, rat.

ACUTE ORAL TOXICITY: Toxicological Information and Interpretation

LD50 - Lethal Dose 50% Of Test Species, 4090 mg/kg, rat.

CHRONIC TOXICITY: This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product.

SECTION 12

ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Daphnia Magna 96 HR LC50 = 265 - 565 MG/L

Bluegill Sunfish 96 HR LC50=300-320 MG/L

CHEMICAL FATE INFORMATION: No data found for product.

SECTION 13

DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different form federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

CONTAINER HANDLING AND DISPOSAL: Rinse containers before disposal.

EPA Hazardous Waste - NO

BALECO INT'L:

5000 SODA ASH (SODIUM CARBONATE, ANHYDROUS)

page 5 of 5

SECTION 14

TRANSPORTATION INFORMATION

Not regulated

SECTION 15

REGULATORY INFORMATION

FEDERAL REGULATIONS

TSCA INVENTORY STATUS: All ingredients of this product are listed on the TSCA Inventory.

SARA TITLE III HAZARD CLASSES:

FIRE HAZARD - NO
REACTIVE HAZARD - NO
RELEASE OF PRESSURE - NO
ACUTE HEALTH HAZARD - YES
CHRONIC HEALTH HAZARD - NO

STATE REGULATONS: This product does not contain any components that are regulated under California Proposition 65.

SECTION 16

OTHER INFORMATION

NFPA RATING:

HMIS RATING

- 2 Health Hazard Rating - Moderate
- 0 Flammability Rating - Minimal
- 0 Reactivity Rating - Minimal
- 2 Health Hazard Rating - Moderate
- 0 Flammability Rating - Minimal
- 0 Reactivity Rating - Minimal

The information in this material safety data sheet should be provided to all who will use, handles, 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. Baleco 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 material safety data sheet is more than three years old, you should contact Baleco at The phone number listed in section 1 to make certain that this sheet is current.

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Baleco Int'l Inc makes no representations as to the completeness or accuracy thereof.

Information is supplied upon the condition that the persons receiving same will make their own determination as to its safety and suitability for their purposes prior to use.

\In no event will Baleco Int'l Inc be responsible for damages of any nature whatsoever resulting from the use or reliance upon information.

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or of any other nature, are made hereunder with respect to information or the product to which the information refers.

Prepared By: MSDS Department

Baleco Int¹ Inc Cinti, OH 45211 (513)353-3000

End of MSDS