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# Material Safety Data

**SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION** page 1 of 5

PRODUCT NAME: MAINTAIN CALCIUM PLUS, CALCIUM PLUS  
 PRODUCT ID: 5500 DATE: 12-06-2007  
 SYNONYMS: CALCIUM CHLORIDE FLAKE EDITION: 04  
 SUPPLIER: BALECO INTERNATIONAL INC  
 3200 STATE LINE ROAD  
 NORTH BEND, OHIO 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**

MATERIAL	CAS NUMBER	PERCENT
CALCIUM CHLORIDE	010043-52-4	83-87%
SODIUM CHLORIDE	067647-14-5	1-2%
POTASSIUM CHLORIDE	007447-40-7	2-3%
WATER	007732-18-5	8-14%

**SECTION 3 HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:**  
 Color: White. Physical State: Flakes. Odor: Odorless. Warning! CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED.  
 OSHA Hazard Communication standard: This product is a hazardous chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
**POTENTIAL HEALTH EFFECTS**  
**EYE CONTACT:** For dust: May cause severe eye irritation. May cause corneal injury. Effects may be slow to heal.  
**SKIN CONTACT:** Brief contact is essentially nonirritating to skin. Prolonged contact may cause skin irritation, even a burn. Not classified as corrosive to the skin according to DOT guidelines. May cause more severe response if skin is damp. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves).  
**SKIN ABSORPTION:** prolonged skin contact is unlikely to result in absorption of harmful amounts.  
**INHALATION:** Dust may cause irritation to upper respiratory tract (nose and throat). Vapors are unlikely due to physical properties.  
**INGESTION:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. //swallowing may result in gastrointestinal irritation or ulceration.

**SECTION 4 FIRST AID**

**EYE CONTACT:** Immediately flush eyes with water; remove contact lenses if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.  
**SKIN CONTACT:** Wash skin with plenty of water.  
**INHALATION:** Move person to fresh air; if effect occur, consult a physician.  
**INGESTION:** Do not induce vomiting. Give one cup (8 ounces) of water or milk, if available, and transport to a medical facility. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Do to irritant properties, swallowing may result in burns/ulcerations of the mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration if vomitus may cause lung injury, Suggest endotracheal/esophageal control if lavage is done, If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

FIRE FIGHTING PROCEDURES: Keep people away. Isolate fire area and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning. Water should be applied in large quantities as fine spray.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and full protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If contact is likely change to full chemical resistant fire fighting clothing with SCBA. If this is not available, wear full chemical resistant clothing with SCBA and fight fire from remote location.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat is generated when product mixes with water.

Hazardous Combustion Products: Not Applicable.

## SECTION 6 ACCIDENTAL RELEASE MEASURES (SEE SECTION 15 FOR REGULATORY INFORMATION)

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See section 13, Disposal Considerations, for additional information.

PERSONAL PRECAUTIONS: Isolate area. Keep unnecessary and unprotected personnel from entering area.. Use appropriate safety equipment. For additional information, refer to "exposure Controls / personnel protection", msds section 8. Refer to section 7, Handling & Storage, for additional precautionary measures.

ENVIRONMENTAL PRECAUTIONS: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See section 12, Ecological information.

## SECTION 7 HANDLING AND STORAGE

HANDLING: General Handling: Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C). Avoid contact with skin, eyes or clothing. Do not swallow. Wash thoroughly after handling. Keep container closed. See section 8, Exposure Controls/Personal Protection.

STORAGE: Store in a dry place. Protect from atmospheric moisture.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE LIMITS:

COMPONENT	LIST	TYPE	VALUE
Calcium Chloride	Dow IHG	TWA	10 mg/m <sup>3</sup>
Sodium Chloride	Dow IHG	TWA	10 mg/m <sup>3</sup>

### PERSONAL PROTECTION

EYE/FACE PROTECTION: Use safety glasses. For dusty operations or when handling solutions of the material, wear chemical goggles.

SKIN PROTECTION: Wear clean, body-covering clothing.

HAND PROTECTION: Use gloves chemically resistant to this material. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: neoprene, polyvinyl (pvc or vinyl), nitrile/butadiene rubber.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When

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INGESTION: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before eating or using tobacco products.

ENGINEERING CONTROLS:

VENTILATION: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limits requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: FLAKES

COLOR: WHITE

ODOR: ODORLESS

FLASH POINT (CLOSED CUP): NOT APPLICABLE

FLAMMABLE LIMIT IN AIR: LOWER AND UPPER – NOT APPLICABLE

AUTOIGNITION TEMPERATURE: NOT APPLICABLE

VAPOR PRESSURE: NOT APPLICABLE

BOILING POINT: NOT APPLICABLE

VAPOR DENSITY (AIR=1): NOT APPLICABLE

SPECIFIC GRAVITY (H<sub>2</sub>O=1): NOT APPLICABLE

BULK DENSITY: 45 – 54 LB/FT<sup>3</sup> ESTIMATED

FREEZING POINT: NOT APPLICABLE

MELTING POINT: 260 DEG C (500 DEG F) LITERATURE

SOLUBILITY IN WATER: LITERATURE READILY SOLUBLE

HYGROSCOPIC: YES

## **SECTION 10 STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable. Hygroscopic.

CONDITIONS TO AVOID: None Known. Avoid moisture.

INCOMPATIBLE MATERIALS: Heat is generated when mixed with water. Spattering and boiling can occur. Avoid contact with: sulfuric acid. Corrosive when wet. Flammable hydrogen may be generated from contact with metals such as: Zinc and Sodium. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromate.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose.

HAZARDOUS POLYMERIZATION: Will not occur.

## **SECTION 11 TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY

Ingestion: For the major component(s): LD<sub>50</sub>, Rat 900- 2,100mg/kg.

Skin Absorption: For the major component(s): LD<sub>50</sub>, Rabbit >5,000mg/kg.

Repeated Dose Toxicity: The data presented are for the following material: Potassium chloride. In animals, effects have been reported on the following organs after ingestion: Gastrointestinal tract. Heart. Kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Developmental Toxicity: For the major component(s): Did not cause birth defects or any other fetal effects in laboratory animals.

General Toxicity: The data presented are for the following material: Calcium chloride or CaCl<sub>2</sub>. In vitro genetic toxicity studies were negative. The presented are for the following material: Potassium chloride. In vitro genetic toxicity studies were positive. However, the relevance of this to humans is unknown.

**SECTION 12****ECOLOGICAL INFORMATION****ENVIRONMENTAL FATE**

**MOVEMENT & PARTITIONING:** Partitioning from water to n-octanol is not applicable.

**DEGRADATION & PERSISTANCE:** Biodegradation is not applicable.

**ECOTOXICOLOGY:** Based largely or completely on data for major component (s). Material is practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 >100 mg/l in most sensitive species).

**SECTION 13 DISPOSAL CONSIDERATIONS (SEE SECTION 15 FOR REGULATORY INFORMATION)**

**DISPOSAL:** Do not dump into any sewers, on the ground, or into any body of water. All Disposal methods must be in compliance with all Federal, State / Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws is the responsibility solely of the waste generator.

Baleco international inc. has no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in msds Section 2 (composition/information on ingredients).

For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: reclaimer, landfill, or wastewater treatment system.

As a service to its customers, Dow can provide lists of companies, which recycle, reprocess or manage chemicals or plastics, and companies that manage used drums. Telephone Dow's customer information center at 800-258-2436 or 989-832-1556 for further details.

**SECTION 14****TRANSPORT INFORMATION**

**UNITED STATES DOT INFORMATION:** This product is not regulated by *dot* when shipped domestically by land.

**SECTION 15 REGULATORY INFORMATION****SECTION 16****OTHER INFORMTION**

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.

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