CALGONATE® Emergency Eyewash

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

Supplier:
Calgonate Corp.
1391 NW St Lucie West Blvd #303
Port St Lucie, FL 34986
Phone: 888-434-3548 or +1 (772) 408-8884

Trade name: Calgonate® Emergency Eyewash
Chemical name: A solution of calcium gluconate, boric acid, sodium borate, sodium chloride, and benzalkonium chloride in a purified water base, to form an isotonic, buffered and sterile eyewash.
Typical product use: Topical / irrigation of the eyes in cases of exposure to particulates, alkali, or acid.
Formula number: N/A

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENT	CAS #	% WEIGHT	EXPOSURE LIMITS (route, species)
Water	7732-18-5	98%	
Calcium Gluconate	299-28-5	1%	LD_{50}: 950 mg/kg (IV, rat, mouse) LD_{50}: 2890 mg/kg (subcutaneous, rat) TLV: 15 mg/m^3
Boric acid	10043-35-3	<1%	LD_{50}: 2660 mg/kg (oral, rat) LD_{50}: 3450 mg/kg (oral, mouse)
Sodium borate	1303-96-4	<1%	LD_{50}: 2660 mg/kg (oral, rat)
Sodium chloride (Saline)	7647-14-5	<1%	LD_{50}: 3000 mg/kg (oral, rat)
Benzalkonium chloride	8001-54-5	0.01%	LD_{50}: 240 mg/kg (oral, rat)

LD_{50} = Lethal dose in 50% of animals tested (specify route)
TLV = Threshold limit values (The amounts of chemicals in the air that almost all healthy adult workers are predicted to be able to tolerate without adverse effects averaged over an 8-hour workday / 40-hour work week.)

SECTION 3 - PHYSICAL DATA

The following physical data are approximate only and do not represent specification values. They should only be used in the context of this material safety data sheet.

Physical state:	Aqueous solution
Appearance:	Colorless
Odor:	Odorless
Odor threshold:	N/A
Specific gravity (water =1):	1
Vapor pressure (psig at 21°C):	N/A
Vapor density (air =1):	N/A

Evaporation rate (n-butyl acetate =1):	N/A
Boiling point (°C):	N/A
Freezing point:	N/A
pH:	6.8 – 7.2
Coefficient of water/oil distribution:	N/A
Solubility in water (% by weight at 20°C):	N/A
% volatile by volume:	N/A

SECTION 4 - FIRE OR EXPLOSION HAZARD

Flammability (determined by flame projection): N/A

Conditions of flammability: N/A.

Means of extinction: Dry chemical, CO_2, foam, water

Flash point: N/A **Method used:** N/A

Flammable limits in air (% by volume): Lower: N/A Upper: N/A

Auto-ignition temperature: N/A

Hazardous combustion products: N/A

Explosion data:
Sensitivity to shock: N/A
Sensitivity to static discharge: N/A

SECTION 5 - REACTIVITY DATA

Chemical stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature (room temperature) and pressure. Avoid storage in hot, unventilated areas.

Incompatibility: May react with oxidizing agents and strong bases. Calcium gluconate: incompatible with clindamycin phosphate. Boric acid: incompatible with potassium, acetic anhydride; reacts with basic materials to form borate salts; reactive with alkalis. Benzalkonium chloride: Slightly reactive to reactive with oxidizing agents; incompatible with nitrates, anion detergents. Sodium Borate: Reactive with oxidizing agents. Sodium Chloride (Saline): incompatible with lithium, bromine trifluoride.

Conditions of reactivity: Avoid storage in hot, unventilated areas.
Hazardous decomposition products (combustion): Carbon monoxide (CO) and carbon dioxide (CO_2). Sodium Chloride: When heated to above 801°C (1474°F) emits toxic fumes of chloride and sodium oxide.

SECTION 6 - TOXICOLOGICAL PROPERTIES

Possible routes of entry:

- ○ Inhalation (breathing)
- ✓ Skin/eye contact (localized irritation)
- ✓ Skin/eye absorption (systemic)
- ✓ Ingestion (systemic) - May cause gastric irritation and hypercalcemia

Effects of acute exposure:
Calcium gluconate: No negative effects expected from the low concentration in this mixture. Ingestion of a large quantity may cause gastro-intestinal irritation and hypercalcemia. Concentrated form may be irritating to skin, eyes, respiratory tract and mucous membranes.
Sodium Borate: No negative effects expected from the low concentration in this mixture. Concentrated form may cause irritation of skin or eyes. Very high concentrations slightly hazardous in case of skin contact (permeator), of ingestion, of inhalation.
Boric Acid: No negative effects expected from the low concentration in this mixture. Concentrated form: hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation; Slightly hazardous in case of skin contact (permeator).
Benzalkonium chloride: No negative effects expected from the low concentration in this mixture. In concentrations 150,000% higher than in this mixture, this ingredient is very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion; hazardous in case of skin contact (corrosive, permeator); slightly hazardous in case of eye contact (corrosive), of inhalation (lung sensitizer). Also in very high concentrations, liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract; skin contact may produce burns; inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.
Sodium Chloride (Saline): No negative effects expected from the low concentration in this mixture. Concentrated form may cause mild irritation to the respiratory tract. Very large doses can cause vomiting, diarrhea, and prostration; dehydration and congestion occur in most internal organs.

Effects of chronic exposure: N/A

SECTION 7 - PREVENTIVE MEASURES

Recommendations listed in this section indicate the type of equipment which will provide protection against over-exposure to this product. Conditions of use, adequacy of engineering or other control measures and actual exposures will dictate the need for specific protection devices at your workplace.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Protective gloves: Not normally required
Eye protection: Not normally required
Other protective equipment: Not normally required
Ventilation: Not normally required
Specific engineering controls to be used: N/A

Steps to be taken in case material is released or spilled: Use absorbent material. Wash the area with water.
Waste disposal method: Dispose of in accordance with local, provincial and federal regulations.
Handling procedures and equipment: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature (room temperature) and pressure. Avoid contact with oxidizing agents and strong bases.

Storage requirements: This material is considered stable under normal storage temperature and pressure conditions. Store in a cool, well-ventilated area at room temperature.

Special shipping information: Avoid storage in hot, unventilated areas. Avoid contact with incompatibilities.
UN Product Identification Number (PIN) (Transportation of Dangerous Goods Act): N/A

SECTION 8 - FIRST AID MEASURES

The product is intended to be used in first aid activities where irritation may already exist in the contact area. However, if the product is suspected to be increasing irritation or discomfort, discontinue use and treat accordingly.

Inhalation: Remove patient to fresh air. Get medical attention if the person is having difficulty breathing.

Skin contact: Flush exposed skin with copious amounts of water and soap. Consult a physician if irritation develops.

Eye contact: Remove any contact lenses. Flush with copious amounts of water for at least 15 minutes, holding the eyes open wide. Consult a physician.

Ingestion: Wash out mouth with water, provided person is conscious. Get medical attention. Do not induce vomiting unless directed by a physician.

SECTION 9 - PREPARATION INFORMATION

The above data are offered in good faith as typical values, not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. The information contained in this form is based on data from sources considered technically reliable and has been prepared in good faith in accordance with the available material. It is provided as a service to the persons using the product but conditions of use and handling may involve other and additional considerations beyond the control of Calgonate Corp. Each user should review these recommendations in the specific context of intended use.