

1. Product and Company Identification

Product Code:	Z-CALGUARD	
Product Name:	CAL-GUARD	
Trade Name:	CAL-GUARD	
Company Name:	Stoller	Phone Number:
	9090 Katy Freeway	1 (713)461-1493
	Suite 400	
	Houston, TX 77055	
Web site address:	www.stollerusa.com	
Email address:	stoller@stollerusa.com	
Emergency Contact:	CHEMTREC, In the US and Canada call	1 (800)424-9300
	CHEMTREC, From other countries call	+1 (703)527-3887
Information:		1 (800)539-5283
Intended Use:	For agricultural use only	

2. Hazards Identification

Serious Eye Damage/Eye Irritation, Category 2

Acute Toxicity: Inhalation, Category 4

Skin Corrosion/Irritation, Category 2

Acute Toxicity: Oral, Category 4

Corrosive To Metals, Category 1



GHS Signal Word: Warning

GHS Hazard Phrases: H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.

GHS Precaution Phrases: P234 - Keep only in original container.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment see ... on this label.
P330 - Give 2-3 glasses of water if victim is conscious and alert. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Obtain medical attention immediately if ingested. Do not leave victim unattended. Wear impervious gloves while decontaminating skin and hair.
P332+313 - If skin irritation occurs, get medical advice/attention.

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GHS Storage and Disposal Phrases:	P337+313 - If eye irritation persists, get medical advice/attention. P362 - Take off contaminated clothing and wash before re-use. P390 - Absorb spillage to prevent material damage.
OSHA Regulatory Status:	P501 - Dispose of contents/container to treatment at a permitted facility or as advised by your local regulatory authority.
Potential Health Effects (Acute and Chronic):	This material is classified as hazardous under OSHA regulations. Hazards not otherwise classified (HNOC) or not covered by GHS: None. Chronic exposures to skin and mucous membranes that cause irritation may cause a chronic dermatitis or mucosal membrane problem.
Inhalation:	Inhaling mist, spray, or vapor may cause irritation to upper respiratory tract (nose and throat). Nasal mucosal and oropharyngeal erythema.
Skin Contact:	Skin irritation. Skin exposure may cause slight irritation, redness, itching, swelling. May cause more severe response if skin is damp, abraded (scratched or cut), or covered by clothing, gloves or footwear. Prolonged contact may cause more severe symptoms. Damage is localized to contact areas.
Eye Contact:	Causes eye irritation. Eye exposure may cause serious eye irritation and pain. May cause conjunctival swelling and cornea opacification from hypertonic solution. Corneal eye pain, redness, acute corneal thickening or whitening.
Ingestion:	Consumption of hypertonic solutions causes nausea, vomiting, and increased thirst.
Medical Conditions Generally Aggravated By Exposure:	Any skin condition that disrupts the skin, such as abrasions, cuts, psoriasis, fungal infections, etc. Any eye condition that compromises tear production, conjunctiva, or normal corneal homeostasis.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	RTECS #
22691-02-7	Calcium Chloride	<25.0 %	EV9800000
13598-36-2	Phosphorous acid, Ortho	<45.0 %	SZ6400000

4. First Aid Measures

Emergency and First Aid Procedures:	Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. Always bring with victim a copy of label and SDS of product to health professional.
In Case of Inhalation:	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
In Case of Skin Contact:	Wash with plenty of water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before re-use.
In Case of Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs, get medical advice/attention.
In Case of Ingestion:	Give 2-3 glasses of water if victim is conscious and alert. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Obtain medical attention immediately if ingested. Do not leave victim unattended. Wear impervious gloves while decontaminating skin and hair. Call a POISON CENTER or doctor/physician if you feel unwell.
Signs and Symptoms Of Exposure:	Solution and/or solids may be visible on the skin and/or eyes. Localized redness, warmth, and irritation consistent with mechanism of injury: abrasion, burn, hypertonic solution.
Note to Physician:	Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt:	N.A.
Explosive Limits:	LEL: N.A. UEL: N.A.
Autoignition Pt:	N.A.
Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	None known.
Fire Fighting Instructions:	Keep unnecessary people away; isolate hazard area and deny entry. Fight fire for other material that is burning. Water should be applied in large quantities as fine spray. Wear NIOSH approved positive-pressure self-contained breathing apparatus operated in pressure demand mode. Wear protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.
Flammable Properties and Hazards:	This material does not burn.
Hazardous Combustion Products:	Formed under fire conditions: hydrogen chloride gas, calcium oxide

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	Isolate the area. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard on some surfaces. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.
Environmental Precautions:	Prevent entry into waterways, sewers, basements or confined areas. See Section 12, Ecological Information.
Steps To Be Taken In Case Material Is Released Or Spilled:	Small and large spills: Contain spilled material if possible. Absorb with materials such as sand. Collect in suitable and properly labeled containers. Flush residue with water. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Precautions To Be Taken in Handling:	Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Wear personal protective equipment as described in Section 8, Exposure Controls/Personal Protection.
Precautions To Be Taken in Storing:	Protect from atmospheric moisture. Keep containers tightly closed when not in use. Keep separated from incompatible substances see Section 10, Stability and Reactivity.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
22691-02-7	Calcium Chloride	No data.	TLV: 10 mg/m ³	No data.
13598-36-2	Phosphorous acid, Ortho	No data.	TLV: 1 mg/m ³ Vapor/8 hrs	No data.

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Respiratory Equipment (Specify Type):	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: high efficiency particulate air (HEPA) N95. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.
Eye Protection:	Wear safety glasses with side-shields. Wear chemical safety goggles and/or a face-shield to protect against skin and eye contact when appropriate.
Protective Gloves:	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 chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Other Protective Clothing:	Wear clean, body-covering clothing. Wear appropriate clothing to avoid skin contact.
Engineering Controls (Ventilation etc.):	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit 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.
Work/Hygienic/Maintenance Practices:	Use good personal hygiene. Do not consume or store food in the work area. Wash hands and affected skin immediately after handling, before smoking or eating, before breaks, and at the end of the workday.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Clear, liquid. Very slight characteristic odor.
pH:	< N.A.
Freezing Point:	N.E.
Boiling Point:	> 240.00 F (115.6 C)
Flash Pt:	N.A.
Evaporation Rate:	N.E.
Flammability (solid, gas):	Material will not burn.
Explosive Limits:	LEL: N.A. UEL: N.A.
Vapor Pressure (vs. Air or mm Hg):	N.E.
Vapor Density (vs. Air = 1):	N.E.
Specific Gravity (Water = 1):	N.A.
Density:	~ N.A. LB/GA
Solubility in Water:	Soluble
Saturated Vapor Concentration:	N.E.

Octanol/Water Partition Coefficient:	No data.
Percent Volatile:	N.A.
Autoignition Pt:	N.A.
Decomposition Temperature:	N.A.
Viscosity:	N.E.

10. Stability and Reactivity

Reactivity:	Hygroscopic.
Stability:	Unstable [<input type="checkbox"/>] Stable [<input checked="" type="checkbox"/>]
Conditions To Avoid - Instability:	Stable under normal temperatures and pressures.
Incompatibility - Materials To Avoid:	Avoid contact with: bromide trifluoride. 2-furan percarboxylic acid because calcium chloride is incompatible with those substances. Contact with zinc forms flammable hydrogen gas, which can be explosive. Catalyzes exothermic polymerization of methyl vinyl ether. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromates.
Hazardous Decomposition or Byproducts:	Formed under fire conditions: hydrogen chloride gas, calcium oxide
Possibility of Hazardous Reactions:	Will occur [<input type="checkbox"/>] Will not occur [<input checked="" type="checkbox"/>]
Conditions To Avoid - Hazardous Reactions:	None known.

11. Toxicological Information

Toxicological Information:	Mutagenicity: This product has not been investigated for mutagenic effects. Embryotoxicity: This product has not been investigated for embryotoxic effects. Teratogenicity: This product has not been investigated for teratogenic effects. Reproductive Toxicity: This product has not been investigated for toxic reproductive effects.
Irritation or Corrosion:	No data available.
Symptoms related to Toxicological Characteristics:	No data available.
Sensitization:	No data available.
Chronic Toxicological Effects:	The toxicological properties of this material have not been fully investigated.
Carcinogenicity/Other Information:	No component is listed as a carcinogenic by IARC, NTP, OSHA, and ACGIH.
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:	The available data on this material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at eliminating environmental contamination. Any waste due to spillage or leakage should be contained and disposed of accordingly, see above under Section 6 "Accidental Release Measures."
Results of PBT and vPvB assessment:	No data available.

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Persistence and Degradability:	Calcium chloride is believed not to persist in the environment because it is readily dissociated into calcium and chloride ions in water. Both ions originally exist in nature, and their concentrations in surface water will depend on various factors, such as geological parameters, weathering and human activities.
Bioaccumulative Potential:	Calcium chloride and its dissociated forms (calcium and chloride ions) are ubiquitous in the environment. Calcium and chloride ions can also be found as constituents in organisms. Considering its dissociation properties, calcium chloride is not expected to accumulate in living organisms.
Mobility in Soil:	Chloride ions are mobile in soil eventually draining into surface water.

13. Disposal Considerations

Waste Disposal Method:	PRODUCT: Reuse or reprocess, if possible. Waste disposal must be done following all Federal, State and Local regulations. Regulations may vary in different locations. Report spills if applicable. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority. CONTAINER: Dispose properly accordingly to regulations on empty containers in your locality or make available to a container reconditioning facility for recycling.
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14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name:	Not Regulated.		
	Trade Name: CAL-GUARD		
DOT Hazard Class:	8	CORROSIVE	
UN/NA Number:	3264	Packing Group:	I



MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name:	Not Regulated. Trade Name: CAL-GUARD		
UN Number:	3264	Packing Group:	I
Hazard Class:	8 - CORROSIVE		
		IMDG MFAG Number:	N.A.
IMDG EMS Page:			

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not Regulated. Trade Name: CAL-GUARD

Additional Transport Information:	Placards / Markings: N.A.
	Emergency Response Guide Number: N.A.
	Reportable Quantity: N.A.

15. Regulatory Information

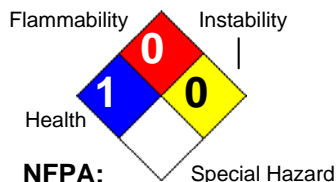
16. Other Information

Revision Date: 03/29/2016

Hazard Rating System:

HEALTH		1
FLAMMABILITY		0
REACTIVITY		0
PPE		

HMIS:



Additional Information About This Product: No data available.

Company Policy or Disclaimer:

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