

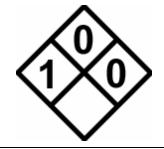
HASA CALCIUM CHLORIDE

Material Safety Data Sheet

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COMPOSITION/INFORMATION ON INGREDIENTS		
Chemical Name:	Calcium Chloride	
CAS Number:	10043-52-4	

Exposure Limits (TWAs) in Air					
ACGIH TLV:	N/A	OSHA PEL:	N/A	STEL:	N/A

		HAZARD IDENTIFICATION		
Routes of E	Routes of Exposure: Inhalation, Skin			
		Summary of Acute Health Hazards		
Ingestion: Acute Exposure:		May cause abdominal spasms and nausea. Overdose may cause gastro- intestinal tract or cardiovascular irregularities. The fatal dose is estimated to be about 30 gms		
	Chronic Exposure:	No adverse effects have been reported from its use as a food additive.		
Inhalation:	Acute Exposure:	Inhalation or dust may cause irritation with coughing and shortness of breath.		
	Chronic Exposure:	Reported cases of burning sensation and pain in the nasal cavities. Occasional nose bleed, and tickling in the throat. Perforation of the nasal septum has been reported.		
Skin:	Acute Exposure:	Single, short exposure not likely to cause significant skin irritation. However, direct contact with dust or solutions may cause severe irritation. Erythema, blistering, exfoliation, ulceration, necrosis, and scarring. The degree of irritation depends on the concentration and duration of contact.		
	Chronic Exposure:	Effects depend on concentration and duration of exposure. Repeated or prolonged contact with corrosive substances may result in dermatitis or effects similar to those in acute exposure.		
Eyes:	Acute Exposure:	Direct contact with the dust may cause irritation with redness and pain and superficial injury. Lacrimation and eye discharge may also occur. Direct contact of calcium chloride in solution is essentially innocuous. Application of 2 – 10% solution to rabbit eyes caused no permanent injury.		
	Chronic Exposure:	Repeated or prolonged exposure may result in conjunctivitis.		

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Summary of Chronic Health Hazards:	N/A
Signs and Symptoms of Exposure:	N/A
Effects of Overexposure:	N/A
Medical Conditions Generally Aggravated by Exposure:	N/A
Note to Physicians:	N/A

	FIRST AID MEASURES
Ingestion:	Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. If vomiting occurs, keep head lower than hips to prevent aspiration.
Inhalation:	Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY.
Skin:	Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
Eyes:	Wash eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of chemical remains (approx. 15-20 minutes). GET MEDICAL ATTENTION IMMEDIATELY.

FIRE FIGHTING MEASURES				
Flash Point:	Negligible Fire Hazard	Autoignition Temperature:	Negligible Fire Hazard	
Lower Explosive Limit:	N/A	Upper Explosive Unit:	N/A	

Unusual Fire and	Negligible fire hazard when exposed to heat or flame.
Explosion Hazards:	
Extinguishing Media:	Dry chemical, carbon dioxide, water spray or regular foam. For 1arger fires,
	use water spray, fog, or regular foam.
	(1990 Emergency Response Guidebook, DOT p 5800.5).
Special Firefighting	Move containers from fire area if you can do it without risk. Apply cooling
Procedures:	water to sides of containers that are exposed to flames until well after fire is
	out. Extinguish fire using agent suitable for type of surrounding fire. Do not
	use water directly on material. Avoid breathing corrosive vapors; keep
	upwind.

ACCIDENTAL RELEASE MEASURES

Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into container for 1ater disposal. For small dry spills, with clean shovel place material into clean, dry container and cover.

Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard and deny entry.

HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this substance. Store in a tightly closed container. Store away from incompatible substances.

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EXPOSURE CONTROLS/PERSONAL PROTECTION			
Respiratory Protection:	Avoid breathing dust. If necessary, use only MSHA - or		
	NIOSH-approved respirators.		
Ventilation:	N/A		
Protective Clothing:	Employees must wear protective clothing, shoes and		
	equipment to prevent repeated or prolonged skin contact with this substance.		
Eye Protection:	Employees must wear safety glasses with splash shields or safety goggles to prevent contact with this substance.		
Other Protective Clothing or Equipment:	Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain and quick drench shower within the immediate work area for emergency use.		
Work/Hygienic Practices:	Wash hands with soap and water before eating, drinking, smoking, or using toilet facilities.		

PHYSICAL AND CHEMICAL PROPERTIES				
Physical State:	Solid	pH:	9-10	
Melting Point/Range:	782° C; 1440° F	Boiling Point/Range:	>1600° C; 2912° F	
Specific Gravity (Water=1):	2.15 @ 25°C	Molecular Weight:	110.986	
Vapor Density:	N/A	% Volatiles:	N/A	
How to detect this compound:	N/A Vapor Pressure (mmHg): N/A			
Appearance/Color/Odor:	Colorless to white, deliquescent crystals.			
Solubility in Water:	Approx. 40 weight percent @ 20° C with evolution of heat.			

STABILITY AND REACTIVITY				
Stability:	Stable	Hazardous Polymerization:	Will not occur.	
Conditions to Avoid:	Anhydrous form reacts exothermically with water.			
Materials to Avoid:	Boric Acid + Calcium Oxide, Bromine Trifluoride, Furan-2- Peroxycarboxylic Acid. Metals (Corrosive in the presence of moisture), Methyl Vinyl Ether, Zinc.			
Hazardous Decomposition Products:	Thermal decompositio	n products may include toxic and	d corrosive fumes.	

TO	CICOLOGICAL INFORMATION
N/A	

	ECOLOGICAL INFORMATION	
N/A		

DISPOSAL CONSIDERATIONS				
Observe all federal, state and local regulations when disposing this substance.				

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TRANSPORT INFORMATION					
DOT Proper Shipping Name:	N/A				
DOT Hazard Class/I.D. No.:	N/A				

REGULATORY INFORMATION									
Reportable Quantity: N/A									
NFPA RATING:	NFPA RATING: Health - 1		- 1	Fire - 0		Reactivity - 1			
0= Insignificant	1= 5	Slight 2		2= Moderate 3=		3= High	4= Extreme		Extreme
Carcinogenicity Lists: No N			NTP: N	lo	IARC Monograph: No		OSI No	ΗA	Regulated:

	OTHER INFORMATION
Synonyms/Common Names:	Anhydrous Calcium Chloride, Prilled Calcium Chloride, Calcium Dichloride
Chemical Family/Type:	Inorganic Salt

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