

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

## Request for Quotation

108C0006

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ADDRESS CORRESPONDENCE TO ATTENTION OF

JOHN JOHNSTON 304-558-2402

DIVISION OF HIGHWAYS VARIOUS LOCALES AS INDICATED BY ORDER

\*709024622 630-371-2655 SICALCO LTD 907 NORTH ELM STREET SUITE 100 HINSDALE IL 60521

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PAGE 5

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## 10-8-C0006

Item	Est. Usage		Unit Price Per Gal.
1.	20,000 Gals.	32% Liquid Calcium Chloride Solution To fill 6,000 gallon storage tanks for the purpose of pre-wetting sodium chloride	<u>\$.81</u>
2.	10,000 Gals.	42% Liquid Calcium Chloride Solution For the purpose of pre-wetting sodium chloride stock piles.	<u>\$1.18</u>
3.	10,000 Gals.	42% Liquid Calcium Chloride Solution To be delivered and sprayed on unpaved rock roads for dust control using Material Application Controllers with Ground Speed Sensors and Variable Spray Width Ability	<u>\$1.18</u>
		Calcium Chloride shall conform to the requirements of ASTM D 98.	

### LOCATIONS AS FOLLOWS:

#### MERCER COUNTY

I-77 Ambrose Lane - Princeton, WV Flat Top, WV Rt. 20 - Princeton, WV

#### MCDOWELL COUNTY

Havaco, WV Yukon, WV Raysal, WV Johnny Cake Mtn., WV

#### RALEIGH COUNTY

Skelton, WV Bolt, WV Bragg, WV

#### WYOMING COUNTY

Pineville, WV Still Run, WV Hanover, WV

The supplier shall understand that even though a bid is requested for each county, not necessarily will an order be extended for each county. Vendor should bid accordingly.

#### **CERTIFICATION:**

The supplier shall furnish the WV Dept. of Transportation representative at the time of delivery two (2) copies of the delivery ticket. The delivery request shall contain the following information upon loading the carrier:

- 1. The gallons and weight of solution delivered.
- 2. The specific gravity and temperature of the solution at the time of the loading.

#### **DELIVERY:**

The minimum delivery of the liquid calcium chloride solution shall be 800 gallons, at any single location. The maximum delivery shall be 3,900 gallons.

The supplier shall furnish a means of determining the specific gravity and temperature of the delivered solution at the first point of delivery. The liquid calcium chloride solution shall be transported in an insulated trailer and shall be delivered at a temperature between 80° and 90° F. The tank shall be equipped with a by-pass pump, and approved metering device, two-hundred (200) feet of two (2) inch hose with a hand-check valve at the nozzle for operator shut-off, a probe for injection of ten (10) feet length supplied in five (5) feet increments, and a certified calibration chart for the delivery tank.

#### PAYMENT:

Liquid calcium chloride solution shall be paid at the per gallon unit bid price of the solution delivered and applied as measured by the approved metering device. In no case will this amount exceed the total gallonage certified on the delivery ticket. The per gallon unit bid price will be adjusted at the rate of 2.50% per 1% deviation before 42%. If the Department's representative, by sampling the material, decides the material deviation is large enough that the solution will not accomplish it's intended use, the shipment will be returned at no cost to the WV Dept. of Transportation.

#### **DEMURRAGE:**

Demurrage will be paid after two (2) hours at any delivery location within District Ten at the rate of one-half (1/2) hours. Supplier and the Department will agree to the incurred demurrage at the point of delivery. Demurrage will not be incurred if vendor arrives at his appointed destination before the appointed time agreed on by the supplier and the Dept. Demurrage will also not be incurred if the temperature of the solution drops to a point it causes a problem in the application process.

PRICE PER ONE-HALF (1/2) HOUR

\$ 45.00

## PRE-WETTING INSTRUCTIONS:

At the delivery point, supplier will provide personnel capable of instructing departmental personnel in the use of pre-wetting equipment and technique. The training should include such topics as handling of liquid calcium chloride, equipment used, safety precautions, and any other topic deemed necessary to increase the efficiency and effectiveness of the operations and use of liquid calcium chloride



## **Material Safety Data Sheet**

The Dow Chemical Company

Product Name: LIQUIDOW\* Technical Grade Calcium Chloride

Solutior

Issue Date: 01/02/2007

Print Date: 02 Jan 2007

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. Product and Company Identification

#### **Product Name**

LIQUIDOW\* Technical Grade Calcium Chloride Solution

#### COMPANY IDENTIFICATION

The Dow Chemical Company 2030 Willard H. Dow Center Midland, MI 48674 USA

Customer Information Number:

800-258-2436

#### **EMERGENCY TELEPHONE NUMBER**

24-Hour Emergency Contact: Local Emergency Contact:

989-636-4400 989-636-4400

## 2. Hazards Identification

#### **Emergency Overview**

Color: Clear

Physical State: Liquid Odor: Odorless Hazards of product:

WARNING! Causes eye irritation. Prolonged exposure may cause skin burns. Slipping hazard. Isolate area.

## **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: May cause severe eye irritation. May cause slight corneal injury. Effects may be slow to heal

**Skin Contact:** Brief contact is essentially nonirritating to skin. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing,

\* Indicates a Trademark

Product Name: LIQUIDOW\* Technical Grade Calcium Chloride Issue Date: 01/02/2007

Solution

gloves). Prolonged contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: Mist may cause irritation of upper respiratory tract (nose and throat).

**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.

## 3. Composition Information

Component	CAS#	Amount
Calcium chloride	10043-52-4	28.0 - 42.0 %
Potassium chloride	7447-40-7	0.0 - 3.0 %
Sodium chloride	7647-14-5	0.0 - 2.0 %
Water	7732-18-5	53.0 - 72.0 %

#### 4. First-aid measures

**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 effects occur, consult a physician.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Notes to Physician:** 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.

## 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 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.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and 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.

Unusual Fire and Explosion Hazards: Not applicable. Hazardous Combustion Products: Not applicable

#### 6. Accidental Release Measures

**Steps to be Taken if 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 plenty of water. See Section 13, Disposal Considerations, for additional information.

Issue Date: 01/02/2007

**Personal Precautions:** Spilled material may cause a slipping hazard. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. **Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

#### Handling

**General Handling:** Product shipped/handled hot can cause thermal burns. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

#### Storage

Keep container closed. Protect from atmospheric moisture. Product may become a solid at temperatures below 0°C (32°F) (concentrations above 36% calcium chloride).

## 8. Exposure Controls / Personal Protection

#### **Exposure Limits**

1				
Component	List	Туре	Value	
Calcium chloride	Dow IHG	TWA	10 mg/m3	
Sodium chloride	Dow IHG	TWA	10 mg/m3	

#### Personal Protection

Eye/Face Protection: Use chemical goggles.

**Skin Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Polyethylene. Neoprene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). 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.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

#### **Engineering Controls**

**Ventilation:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

## 9. Physical and Chemical Properties

Product Name: LIQUIDOW\* Technical Grade Calcium Chloride Solution

Odor

**Physical State** Color

Flash Point - Closed Cup

Flammable Limits In Air

**Autoignition Temperature** 

Vapor Pressure **Boiling Point (760 mmHg)** Vapor Density (air = 1)

Specific Gravity (H2O = 1)

Freezing Point **Melting Point** 

Solubility in Water (by

weight)

pН

Kinematic Viscosity

Liquid

Clear Odorless

Not applicable Lower: Not applicable

Upper: Not applicable Not applicable

9 - 15 mmHg @ 25 °C Literature

110 - 122 °C (230 - 252 °F) Literature. Literature same as water

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1.275 - 1.439 Literature

Varies Not applicable

Literature completely miscible with water

9.2 Estimated (10% dilution in water)

2.6 cSt @ 25 °C Estimated

#### 10. Stability and Reactivity

### Stability/Instability

Stable.

Conditions to Avoid: None known.

Incompatible Materials: Avoid contact with: Sulfuric acid. Corrosive to some metals. Avoid contact with metals such as: Brass. Ferrous metals. Mild steel. Flammable hydrogen may be generated from contact with metals such as: Zinc. Sodium. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromate.

#### **Hazardous Polymerization**

Will not occur.

#### Thermal Decomposition

Does not decompose.

#### 11. Toxicological Information

#### **Acute Toxicity**

Ingestion

For the major component(s): LD50, Rat 900 - 2,100 mg/kg

Skin Absorption

For the major component(s): LD50, Rabbit > 5,000 mg/kg

Genetic Toxicology

The data presented are for the following material: Calcium chloride or CaCl2. In vitro genetic toxicity studies were negative. The data presented are for the following material Potassium chloride. In vitro genetic toxicity studies were positive. However, the relevance of this to humans is unknown.

#### 12. **Ecological Information**

Product Name: LIQUIDOW\* Technical Grade Calcium Chloride

Solution

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#### **CHEMICAL FATE**

#### Data for Component: Calcium chloride

#### **Movement & Partitioning**

No bioconcentration is expected because of the relatively high water solubility. Partitioning from water to n-octanol is not applicable.

#### Persistence and Degradability

Biodegradation is not applicable.

#### Data for Component: Potassium chloride

#### **Movement & Partitioning**

Partitioning from water to n-octanol is not applicable.

#### Persistence and Degradability

Biodegradation is not applicable.

## Data for Component: Sodium chloride

#### **Movement & Partitioning**

No bioconcentration is expected because of the relatively high water solubility. Potential for mobility in soil is very high (Koc between 0 and 50). Partitioning from water to n-octanol is not applicable.

#### Persistence and Degradability

Biodegradation is not applicable.

#### **ECOTOXICITY**

#### Data for Component: Calcium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

#### **Fish Acute & Prolonged Toxicity**

LC50, bluegill (Lepomis macrochirus): 8,350 - 10,650 mg/l

#### **Aquatic Invertebrate Acute Toxicity**

LC50, water flea Daphnia magna: 759 - 3,005 mg/l

#### Toxicity to Micro-organisms

EC50; activated sludge, respiration inhibition: > 1,000 mg/l

#### Data for Component: Potassium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

#### **Fish Acute & Prolonged Toxicity**

LC50, rainbow trout (Oncorhynchus mykiss), 96 h: 4,236 mg/l

#### **Aquatic Invertebrate Acute Toxicity**

EC50, water flea Daphnia magna, 24 h, immobilization: 590 mg/l

LC50, water flea Ceriodaphnia dubia, 96 h: 3,470 mg/l

## Data for Component: Sodium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

## **Fish Acute & Prolonged Toxicity**

LC50, fathead minnow (Pimephales promelas): 10,610 mg/l

#### **Aquatic Invertebrate Acute Toxicity**

LC50, water flea Daphnia magna: 4,571 mg/l

#### **Toxicity to Micro-organisms**

IC50, OECD 209 Test; activated sludge, respiration inhibition: > 1,000 mg/l

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## 13. Disposal Considerations

All disposal practices 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 are the responsibility solely of the waste generator. DOW 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: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Reclaimer. Waste water treatment system. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

## 14. Transport Information

**DOT Non-Bulk** 

**NOT REGULATED** 

**DOT Bulk** 

NOT REGULATED

**IMDG** 

**NOT REGULATED** 

ICAO/IATA

NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. Regulatory Information

#### **OSHA Hazard Communication Standard**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard

Pes
Delayed (Chronic) Health Hazard

No
Fire Hazard

No
Reactive Hazard

No
Sudden Release of Pressure Hazard

No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

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#### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

#### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

#### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

## California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product (when used in aqueous formulations with a chemical oxidizer such as ozone) contains a chemical known to the State of California to cause cancer.

#### **US. Toxic Substances Control Act**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

#### CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

#### 16. Other Information

#### Recommended Uses and Restrictions

A calcium chloride product - Dust Control De-icing fluid. For industrial use. Dow recommends that you use this product in a manner consistent with the listed use. If your intended use is not consistent with Dow's stated use, please contact Dow's Customer Information Group.

Identification Number: 81498 / 1001 / Issue Date 01/02/2007 / Version: 3.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

#### Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for
	activities such as exposure monitoring and medical surveillance if exceeded.

The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with

Issue Date: 01/02/2007

all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

## STATE OF WEST VIRGINIA Purchasing Division

## PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate

#### **DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

**CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit **www.state.wv.us/admin/purchase/privacy** for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name:	STCAL	CO, LTD			
Authorized Signature: _	Tral	LIL Z	) Date:	10/03/2007	
Purchasing Affidavit (Revised	06/15/07)	Bresident			