

**BID FORM**

MISSOURI DEPARTMENT OF TRANSPORTATION

GENERAL SERVICES

PO Box 270, Jefferson City, MO 65102(Mailing Address)

830 MoDOT Drive, Jefferson City, MO 65109 (Physical Address)

REQUEST NO.	2-120530RW		
DATE	May 7, 2012		
PAGE NO.	1	NO. OF PAGES	12

SEALED BIDS, SUBJECT TO THE ATTACHED CONDITIONS WILL BE RECEIVED AT THIS OFFICE UNTIL

**1:00 PM, CDT, May 30, 2012**

AND THEN PUBLICLY OPENED AND READ FOR FURNISHING THE FOLLOWING SUPPLIES OR SERVICES.

**BID TO BE BASED F.O.B. MISSOURI DEPARTMENT OF TRANSPORTATION**

Submit net bid as cash discount stipulations will not be considered

F.O.B. Destinations

Locations as Shown on Attachment

**SIGN AND RETURN BEFORE TIME SET FOR OPENING**

<b>BUYER:</b>	Robin Warren, Sr. General Services Specialist	<b>BUYER TELEPHONE:</b>	(573) 526-7929
<b>BUYER EMAIL:</b>	Robin.Warren@modot.mo.gov		

**SUPPLIES OR SERVICES**MoDOT is seeking bids from qualified bidders whom can provide **Bagged Calcium Chloride (Dry)**.

Sealed bids will be accepted to supply beet juice as described in this bid. The issuance of this RFB in no way constitutes a commitment to award a contract or to pay any costs incurred in preparation of a response to this request.

**\*\*\*NOTE: It is the responsibility of the Bidder to access MoDOT's website in order to obtain any and all addenda(s) issued during the course of this RFB process.**

**All questions regarding this RFB shall be submitted to the RFB Coordinator/Contact.**

**(SEE ATTACHED FOR CONDITIONS AND INSTRUCTIONS)**

*In compliance with the above Request For Bid, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were bid within the timeframe specified herein, after receipt of formal purchase order.*

<b>Date:</b>	_____	<b>Firm Name:</b>	_____
<b>Telephone No.:</b>	_____	<b>Address:</b>	_____
<b>Fax No.:</b>	_____		_____
<b>Email Address:</b>	_____	<b>By (Signature):</b>	_____
	_____	<b>Type/Print Name</b>	_____
		<b>Title:</b>	_____

**1. INTRODUCTION AND GENERAL INFORMATION**

**1.1 Introduction:**

1.1.1 This Request for Bid seeks bids from qualified organizations to provide **Bagged Calcium Chloride (Dry)** located throughout the State of Missouri with an effective contract period of Notice to Proceed through May 31, 2013, to the Missouri Highways and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT). Each bid must be mailed in a sealed envelope to Robin Warren, Missouri Department of Transportation, General Services Procurement, P.O. Box 270, Jefferson City, MO 65102, or hand-delivered in a sealed envelope to the General Services Procurement Office at 830 MoDOT Drive, Jefferson City, MO 65109. All questions regarding the RFB shall be submitted to Robin Warren. Bids must be returned to the office of General Services Procurement no later than 1:00 p.m., CDT, May 30, 2012.

**RFB Coordinator:**

**Robin Warren, Sr. General Services Specialist  
Missouri Department of Transportation  
General Services - Procurement**

**Phone: 573-526-7929  
E-mail: Robin.Warren@modot.mo.gov**

**1.2 General Information:**

1.2.1 This document constitutes an invitation for competitive, sealed bids for the procurement of Bagged Calcium Chloride (Dry) as set forth herein.

1.2.2 Organization - This document, referred to as a Request for Bid (RFB), is divided into the following parts:

- 1) Introduction and General Information
- 2) Scope of Work
- 3) Bid Submission
- 4) Pricing Page(s)
- 5) Signature Page(s)
- 6) Terms and Conditions
- 7) Specifications – Attachment A
- 8) District Map – Attachment B
- 9) Building Locations (*Click on separate link to view.*)

## 2. SCOPE OF WORK

### 2.1 General Requirements:

- 2.1.1 The contractor shall provide Bagged Calcium Chloride (Dry) on an as needed, if needed basis for the Missouri Highway and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT), in accordance with the provisions and requirements stated herein.
- 2.1.2 The contractor shall provide all deliverables/services to the sole satisfaction of MoDOT.
- 2.1.3 MoDOT estimates, but does not guarantee, the purchase of the estimated quantities stated herein may be required/purchased.
- 2.1.4 MoDOT reserves the right to obtain “like or similar” products as specified herein from other manufacturers, exclusive of the contract, when use of such products is deemed in the best interest of MoDOT.
- 2.1.5 The contractor shall insure that all materials, equipment, and/or services specified herein complies with MoDOT Specification # MGS-92-06E, Attachment A, and any other provisions outlined in this document.
- 2.1.6 Unless otherwise specified herein, the contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the deliverables/services required herein.

### 2.2 Delivery Requirements:

- 2.2.1 The contractor shall deliver Bagged Calcium Chloride (Dry) as specified herein to various locations within the MoDOT Districts specified on Attachment B – District Map elsewhere herein.
- 2.2.2 The contractor shall deliver Bagged Calcium Chloride (Dry) within fifteen (15) calendar days after the order is placed. In the event the fifteenth (15th) calendar day is a Saturday, Sunday or Holiday, the delivery shall be accomplished on the next normal workday.
- 2.2.3 The contractor shall make shipments in truckload lots (approximately 22 tons per load). The contractor shall deliver the Bagged Calcium Chloride (Dry) on pallets. Pallet loads are to be accessible from the side or rear of the transporting vehicle for the unloading by means of a forklift. The contractor, or driver, of transporting vehicle shall deliver pallets to the side or rear of the vehicle by providing a hand-operated dolly for this purpose.
- 2.2.3 The contractor shall understand and agree that MoDOT personnel shall unload bagged calcium chloride (dry) during normal working hours only (7:30 a.m. - 4:00 p.m. Monday through Friday) provided the MoDOT Representative at the delivery point is given at least twelve (12) hours advance notice prior to arrival at the delivery point. The contractor shall understand and agree that:
  - a) deliveries shall not be requested or accepted on Holidays, Saturdays or Sundays unless a mutual agreement has been reached between the contractor and MoDOT.
  - b) failure to deliver as requested could be justification for cancellation of the contract award.

### 2.3 Liquidated Damage Requirements:

- 2.3.1 The contractor shall agree and understand that providing the Bagged Calcium Chloride (Dry) in accordance with the requirements stated herein is considered critical to the efficient operations of MoDOT. However, since the amount of actual damages would be difficult to establish in the event the contractor fails to

comply with the contractual requirements, the contractor shall agree and understand that the amount identified below as liquidated damages shall be reasonable and fair under the circumstances.

- a. In the event the contractor fails to provide the Bagged Calcium Chloride (Dry) in accordance with the contractual requirements specified herein, the contractor shall be assessed liquidated damages in the amount of \$250.00 per day for each such delinquent day.
- b. The contractor shall further agree and understand that such liquidated damages shall either be deducted from the total amount due the contractor or paid by the contractor as a direct payment to MoDOT, at the sole discretion of MoDOT.
- c. The contractor shall agree and understand that the liquidated damages described herein shall not be construed as a penalty.
- d. The contractor shall agree and understand that all assessments of liquidated damages shall be within the discretion of each District as a separate entity, and shall be in addition to, not in lieu of, the rights of the State of Missouri to pursue other appropriate remedies. The contractor shall agree and understand that each District's decision shall be individual, final, and without recourse.
- e. The contractor shall agree and understand that if a product(s) is rejected due to not meeting specifications, all costs associated with returning the product to the contractor shall be paid by the contractor.

#### **2.4 Invoicing and Payment Requirements:**

- 2.4.1 The contractor shall submit an itemized invoice to the applicable requesting address for the completion of deliverables, as specified herein.
- 2.4.2 Each invoice should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.
- 2.4.3 The contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page(s) of this document after completion of deliverables specified herein and acceptance by MoDOT.
- 2.4.4 Other than the payment specified above, no other payments or reimbursements shall be made to the contractor for any reason whatsoever.
- 2.4.5 MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Federal Excise Tax Exemption Certificate will be furnished to the successful bidder upon request.
- 2.4.6 Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Missouri Highways and Transportation Commission (MHTC) shall not make any advance deposits.
- 2.4.7 The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the MHTC's rejection and shall be returned at the contractor's expense.
- 2.4.8 The MHTC reserves the right to purchase goods and services using the state-purchasing card.

**2.5 Other Contractual Requirements:**

- 2.5.1 Contract Period - The contract shall commence from the date of award until May 31, 2013 with up to two (2) one-year renewal option periods. If the option for renewal is exercised by MoDOT, the contractor shall agree to all terms and conditions of the RFB and all subsequent amendments. Renewal options are at the sole discretion of MoDOT.
- 2.5.2 Renewal Periods - If the option for renewal is exercised by MoDOT, the contractor shall agree that the prices for the renewal period shall not exceed the maximum price for the applicable renewal period stated herein.
- a. If renewal prices are not provided, the prices during renewal periods shall be the same as during the original contract period.
  - b. MoDOT does not automatically exercise its option for renewal based upon the maximum price and reserves the right to offer or to request renewal of the contract at a price less than the maximum price stated.
  - c. In the event MoDOT exercises its option(s) to renew the contract, the requirements for future years shall be basically similar.
- 2.5.3 Inspection Specifications - MoDOT reserves the right to inspect the material at the point of manufacture, intermediate storage point, or at a destination which shall be at the discretion of MoDOT.
- 2.5.4 Escalation Clause - In the event the contractor requests a price increase during the contract period, the contractor must provide a written request and documentation justifying the need for a price increase, and the amount of such price increase. MoDOT will review the contractor's written request and documentation, and decide if a price increase is to be granted at that particular time. The contractor shall understand and agree that MoDOT's decision shall be final and without recourse.
- a. No price increase shall be granted during the first 3 months of the original contract period, or if applicable, first 3 months of a contract period for a renewal.



**4. PRICING PAGE**

**4.1 BAGGED CALCIUM CHLORIDE (DRY)** – The bidder shall provide a firm, fixed price(s) in the table below for the original contract period and a maximum price(s) for each potential renewal period for providing the deliverables/services in accordance with the provisions and requirements of this RFB. All costs associated with providing the required deliverables/services shall be included in the prices stated below. *See Page 8 for Estimated Quantities.*

**BAGGED CALCIUM CHLORIDE (DRY)**

**FLAKE**

<b>Item #</b>	<b>Commodity Code &amp; Description</b>	<i>Original Contract Period Firm, Fixed Price</i> <i>50-60# bags</i>	<i>1<sup>st</sup> Renewal Period Maximum Price</i> <i>50-60# bags</i>	<i>2<sup>nd</sup> Renewal Period Maximum Price</i> <i>50-60# bags</i>	<i>Minimum Percentage (%) of Calcium Chloride</i>
001	7754577332 - Bagged Calcium Chloride (Dry) – Flake	\$ _____ <i>per ton</i>	\$ _____ <i>per ton</i>	\$ _____ <i>per ton</i>	_____ <i>minimum percent(%)</i>

**PELLET**

<b>Item #</b>	<b>Commodity Code &amp; Description</b>	<i>Original Contract Period Firm, Fixed Price</i> <i>50-60# bags</i>	<i>1<sup>st</sup> Renewal Period Maximum Price</i> <i>50-60# bags</i>	<i>2<sup>nd</sup> Renewal Period Maximum Price</i> <i>50-60# bags</i>	<i>Minimum Percentage (%) of Calcium Chloride</i>
002	7754577328 - Bagged Calcium Chloride (Dry) – Pellet	\$ _____ <i>per ton</i>	\$ _____ <i>per ton</i>	\$ _____ <i>per ton</i>	_____ <i>minimum percent(%)</i>

Location of Warehouse(s) in Missouri \_\_\_\_\_

Brand Name \_\_\_\_\_

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Estimated Quantities**  
*In Tons*

<b>District</b>	<b>Flake</b>	<b>Pellet</b>
Northwest	220	0
Northeast	0	374
Kansas City	0	0
Central	0	16
St. Louis	0	0
Southwest	0	0
Southeast	0	0
<b>TOTALS</b>	<b>220</b>	<b>390</b>

**ANTI-COLLUSION STATEMENT**

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ ) **SS.**

\_\_\_\_\_ being first

duly sworn, deposes and says that he is \_\_\_\_\_  
Title of Person Signing

of \_\_\_\_\_  
Name of Bidder

that all statements made and facts set out in the bid for the above project are true and correct; and that the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such bid or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or financially affiliated with, any other bidder for the above project.

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_

**VENDOR INFORMATION & PREFERENCE CERTIFICATION FORM**

**Vendor Information**

**All bidders must furnish ALL applicable information requested below**

<b>Vendor Name/Mailing Address:</b>  Email Address:	<b>Vendor Contact Information (including area codes):</b> Phone #: Cellular #: Fax #:
<b>Printed Name of Responsible Officer or Employee:</b>	<b>Signature:</b>
<b>For Corporations</b> - State in which incorporated:	<b>For Others</b> - State of domicile:

If the address listed in the Vendor Name/Mailing Address block above is not located in the State of Missouri, list the address of Missouri offices or places of business:

*If additional space is required, please attach an additional sheet and identify it as **Addresses of Missouri Offices or Places of Business.***

**M/WBE INFORMATION:** List all certified Minority or Women Business Enterprises (**M/WBE**) utilized in the fulfillment of this bid. Include percentages for subcontractors and identify the M/WBE certifying agency:

<u>M/WBE Name</u>	<u>Percentage of Contract</u>	<u>M/WBE Certifying Agency</u>
_____	_____	_____
_____	_____	_____

*If additional space is required, please attach an additional sheet and identify it as **M/WBE Information***

**Preference Certification**

**All bidders must furnish ALL applicable information requested below**

**GOODS/PRODUCTS MANUFACTURED OR PRODUCED IN USA:** If any or all of the goods or products offered in the attached bid which the bidder proposes to supply to the MHTC are **not** manufactured or produced in the "United States", or imported in accordance with a qualifying treaty, law, agreement, or regulation, list below, by item or item number, the country other than the United States where each good or product is manufactured or produced.

Item (or item number)	Location Where Item is Manufactured or Produced

*If additional space is required, please attach an additional sheet and identify it as **Location Products are Manufactured or Produced.***

**MISSOURI SERVICE-DISABLED VETERAN BUSINESS:** Please complete the following if applicable. Additional information may be requested if preference is applicable. See below definitions for qualification criteria:

**Service-Disabled Veteran** is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.

**Service-Disabled Veteran Business** is defined as a business concern:

- a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and
- b. The management and daily business operations of which are controlled by one or more service-disabled veterans.

Veteran Information

Business Information

Service-Disabled Veteran's Name (Please Print)

Service-Disabled Veteran Business Name

Service-Disabled Veteran's Signature

Missouri Address of Service Disabled Veteran Business

**Cooperative Procurement**

The Department is interested in assisting Missouri governmental entities, etc. in purchasing equipment, various materials, and supplies that meet the MoDOT specifications.

Each bidder is asked to indicate below whether they would be willing to offer **Calcium Chloride (Dry)** listed in the attached "Request for Bid" for sale to these local political entities at the same bid price offered to this Department.

It is understood the Department will not issue purchase orders, accept delivery nor make payment for these items ordered by any of these agencies. It is further understood the price is based on the **Calcium Chloride (Dry)** meeting the Department specifications. Any added options, deletions, or extra freight costs would be negotiated between the local agency and the successful vendor.

Indicate below whether your company is willing to offer such cooperative purchasing for Missouri counties, cities or other political entities.

YES \_\_\_\_\_ NO \_\_\_\_\_

If the price varies throughout the state on Department bids because of different delivery destinations, please indicate the price f.o.b. your location that would be offered as described.

F.O.B. Location \_\_\_\_\_

Indicate the deadline date that orders will be accepted. \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

**Missouri Highways and Transportation Commission**  
**Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions**

**STANDARD SOLICITATION PROVISIONS**

- a. The solicitation for the procurement of the supplies referenced therein, to which these "Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions" are attached, is being issued under, and governed by, the provisions of Title 7 – Missouri Department of Transportation, Division 10 – Missouri Highways and Transportation Commission, Chapter 11 – Procurement of Supplies, of the Code of State Regulations. The Missouri Highways and Transportation Commission (**MHTC**), acting by and through its operating arm, the Missouri Department of Transportation (**MoDOT**), draws the Bidder's attention to said 7 CSR 10-11 for all the provisions governing solicitation and receipt of bids/quotes and the award of the contract pursuant to this solicitation.
- b. All bids/quotes must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

**GENERAL TERMS AND CONDITIONS**

**Definitions**

Capitalized terms as well as other terms used but not defined herein shall have the meaning assigned to them in section 7 CSR 10-11.010 Definition of Terms.

**Nondiscrimination**

- a. The Contractor shall comply with all state and federal statutes applicable to the Contractor relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*)
- b. **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MHTC shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
  - ii. cancellation, termination or suspension of the contract, in whole or in part.

**Contract/Purchase Order**

- a. By submitting a bid, the Bidder agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's bid response, and (3) the MHTC's acceptance of the bid by post-award contract or purchase order.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized notice to proceed and/or purchase order.

**Applicable Laws and Regulations**

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri, Missouri Department of Revenue, and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MHTC a copy of their current Authority Certificate from the Secretary of State of the State of Missouri and/or a copy of their Certificate of No Tax Due from the Missouri Department of Revenue.
- c. Prior to the issuance of a purchase order and/or notice to proceed, all **out-of-state** Contractors **providing services** within the state of Missouri must submit to MHTC a copy of their current Transient Employer Certificate from the Missouri Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.

**Executive Order:**

The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6<sup>th</sup>) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.

- 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

**Preferences**

- a. In the evaluation of bids/quotes, preferences shall be applied in accordance with 7 CSR 10-11.020(7). Contractors should apply the same preferences in selecting subcontractors. The attached document entitled "**VENDOR INFORMATION AND PREFERENCE CERTIFICATION FORM**" must be completed and returned with the solicitation documents.
- b. Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBES. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

**Missouri Highways and Transportation Commission**  
**Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions**

**Cancellation of Contract**

The MHTC may cancel the Contract at any time for a material breach of contractual obligations or for convenience by providing Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.

**Bankruptcy or Insolvency**

Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntarily, or upon the appointment of a receiver, trustee, or assignee, for the benefit of creditors, the Commission reserves the right and sole discretion to either cancel the Agreement or affirm the Agreement and hold the Contractor responsible for damages.

**Warranty**

The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by the MHTC, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.

**Status of Independent Contractor**

The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

**Non-Waiver**

If one of the parties agrees to waive its right to enforce any term of this Contract, that party does not waive its right to enforce such term at any other time or to enforce any or all other terms of this Contract.

**Indemnification**

The Contractor shall defend, indemnify and hold harmless MHTC, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Contractor's performance of its obligations under the contract awarded pursuant to this solicitation.



## CALCIUM CHLORIDE MGS-92-06E

**1.0 DESCRIPTION.** This specification covers calcium chloride for use as a de-icer for maintenance purposes.

**2.0 MATERIAL.** Unless otherwise specified, calcium chloride may be furnished in either pellet or flake form. No adjustment in quantities will be made due to the form of material furnished.

**2.1 Chemical Composition.** The minimum percent calcium chloride ( $\text{CaCl}_2$ ) shall be as follows, when tested in accordance with MoDOT Test Methods T48 and T26 included in Annex A of this specification:

Flake	77%
Pellet	90%

**2.2 Gradation.** The gradation shall conform to the following requirements, when tested in accordance with this specification.

<u>Sieve Size</u>	<u>Percent Passing (by weight)</u>
3/8 inch	100
No. 4	80 - 100
No. 30	0 - 10

## **3.0 PACKAGING AND MARKING.**

**3.1** The material shall be delivered in 50 - 60 pound moisture-proof bags on non-returnable pallets. Any pallet cost shall be included in the unit bid price.

**3.2** The bags shall be plastic only and of a thickness suitable for the weight of the contents to avoid breakage under normal use, however not less than 5 mil plastic shall be used. Valve-fill bags are allowable, provided they meet the acceptance criteria.

**3.3** The bags shall be legibly marked with:

- (a) Name of the manufacturer.
- (b) Name of the product.
- (c) Net weight.
- (d) Percentage of calcium chloride guaranteed by the manufacturer.

**3.4** The pallets shall be shrink or stretch wrapped with plastic on the top and sides so that the pallet contents will completely shed water and are contained on the sides. No pallets will be acceptable if the wrapping is bonded to the contents.



MGS-92-06E

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(Rev. 05-19-09)

#### **4.0 TEST METHODS.**

**4.1 Gradation.** Approximately 200 g, weighed to the nearest 0.1 g, shall be sieved in accordance with AASHTO T27, utilizing the 3/8-inch, No. 4, and No. 30 sieves together, with a bottom pan and a cover. Sieving shall be completed within a period of approximately one minute.

#### **5.0 ACCEPTANCE.**

**5.1** A lot shall consist of that quantity of material delivered to one location at one time.

**5.2** Acceptance of the material will be based on satisfactory compliance with this specification as determined by samples and inspection deemed necessary by the engineer at the delivery site.

**5.3** The material will be rejected if valve- fill openings are not self sealed suitably to prevent it from leaking out when the bag is stored on it's flat side, or if heat-sealed openings are not completely sealed, or if, upon opening the bags, it is found to be caked or sticky.

**5.4** If samples fail to meet the material requirements on the basis of an initial sample, two additional samples will be taken from the lot and tested. Both of the additional samples must meet the requirements, or the lot will be rejected.



**ANNEX A**  
**Test Method**  
**MoDOT T48**  
**DETERMINATION OF THE PURITY OF CALCIUM CHLORIDE**

**1.0 SCOPE**

1.1 This method describes a procedure for determining the purity of Calcium Chloride intended for use in snow and ice removal.

**2.0 REAGENTS AND APPARATUS**

2.1 Reagents and Apparatus as described in MoDOT Test Method T26.

**3.0 PROCEDURE**

3.1 Weigh, to the nearest 0.1 mg, a sample of the material sufficient to contain 1.45 to 1.55 grams of anhydrous CaCl<sub>2</sub>. Transfer to a 1000 ml volumetric flask and add 200 ml H<sub>2</sub>O. Add a few drops of HCl, Specific Gravity 1.19, to clear the solution. Add by pipette, 25 ml of the MgCl<sub>2</sub> solution. Make just alkaline to Methyl Red with NH<sub>4</sub>OH, and dilute to volume. Determine the calcium by titrating a 20 ml aliquot, using the method described in MoDOT Test Method T26 which is included in Annex B of these specifications.

**4.0 CALCULATIONS**

4.1 Calculate the percent Calcium Chloride as follows:

$$\% \text{ CaCl}_2 = \frac{\text{ml of titration} \times F_{\text{Ca}} \times 50 \times 0.0495}{\text{Wt. of Sample}}$$

Report as:

% Calcium Chloride (CaCl<sub>2</sub>) to the nearest 0.1 percent



**ANNEX A (continued)**

**Test Method  
MoDOT T26  
DETERMINATION OF CALCIUM CARBONATE  
AND MAGNESIUM CARBONATE  
IN LIME AND PIGMENT MATERIALS**

**1. SCOPE**

This method describes a procedure for determining the percent Calcium Carbonate and percent Magnesium Carbonate in Agricultural Lime and Calcium Carbonate paint pigments.

**2. REAGENTS AND APPARATUS**

- (a) Sargent - Malmstadt Automatic Spectro-Electro titrator, Model S-29700
- (b) Hexaver Solution  
Dissolve 65 gm Hexaver (Disodium Dihydrogen 1, 2, Cyclohexanediaminetetracetate) in 2.0 liters of H<sub>2</sub>O
- (c) Magnesium Chloride Solution  
Dissolve 8.00 gm MgCl<sub>2</sub>.6H<sub>2</sub>O (Reagent Grade) in H<sub>2</sub>O and dilute to 1 liter
- (d) Calcon Indicator  
Dissolve 0.30 gm Calcon in 50 ml of Methanol
- (e) EBT Indicator  
Dissolve 0.30 gm of Erichrome Black T in 50 ml of Methanol
- (f) Potassium Hydroxide Solution  
Dissolve 100 gm KOH (Reagent Grade) in 200 ml H<sub>2</sub>O

**3. STANDARDIZATION OF HEXAVER SOLUTION**

- (a) Weigh 0.5801 gm Calcium Carbonate (Primary Standard Grade) and transfer to a 500 ml volumetric flask. Slowly add 15 ml HCL (Sp.Gr. 1.19), and boil for a few minutes to expel CO<sub>2</sub>. Add 2 gm NH<sub>4</sub>CL (Reagent Grade) and 200 ml H<sub>2</sub>O. Add with a pipette 10.00 ml of the MgCl<sub>2</sub> solution, and make alkaline to methyl red with NH<sub>4</sub>OH (Sp.Gr. 0.90). Cool to room temperature and dilute to volume.
- (b) Turn on the power switch of the automatic titrator and allow to warm up for about 15 minutes. Set the controls as follows:

Function Switch - Spectro



Polarity Switch - No. 2

Wavelength Selector - 650

The Hupp Cadmium Sulfide photocell should be used.

Pipette 25.00 ml aliquots into two 100 ml tall form beakers. To one beaker add 3 ml KOH Solution, 10 ml H<sub>2</sub>O, and 10 drops of Calcon indicator. Place the beaker on the titration platform and start the titrator. The burette should be adjusted so that the rate of delivery is about 45 seconds between the 35 ml mark and the 45 ml mark. When the titrator shuts off, record the burette reading as T<sub>ca</sub>. To the second beaker, add 10 ml NH<sub>4</sub>OH and 8 drops of EBT Indicator. Titrate as described above, and record the burette reading as T<sub>mg</sub>.

Calculate the Calcium and Magnesium equivalents of the Hexaver as follows:

$$\text{CaO Equiv. (Fca)} = \frac{65}{T_{ca}}$$

$$\text{MgO Equiv. (Fmg)} = \frac{F_{ca}}{1.391}$$

$$K = T_{mg} - T_{ca}$$

#### 4. PROCEDURE

Weigh 0.5000 gm sample of the material and transfer to a 250 ml beaker. Moisten with H<sub>2</sub>O and add 10 ml HCL. Remove the insoluble matter, SiO<sub>2</sub>, and R<sub>2</sub>O<sub>3</sub> by the methods set forth in ASTM C25-72. Collect all the filtrates and washings from the R<sub>2</sub>O<sub>3</sub> filtration in a 500 ml volumetric flask. Pipette 10 ml MgCl<sub>2</sub> solution into the flask, cool and dilute to volume.

Titrate 25 ml aliquots for calcium and magnesium as described above in Section 3. Record the burette readings as T<sub>ca</sub> and T<sub>mg</sub>

#### 5. CALCULATIONS

Calculate the percent Calcium Carbonate and percent Magnesium Carbonate as follows:

$$\% \text{CaCO}_3 = F_{ca} \times T_{ca} \times 1.7848$$

$$\% \text{MgCO}_3 = F_{mg} \times (T_{mg} - T_{ca} - K) \times 2.0915$$

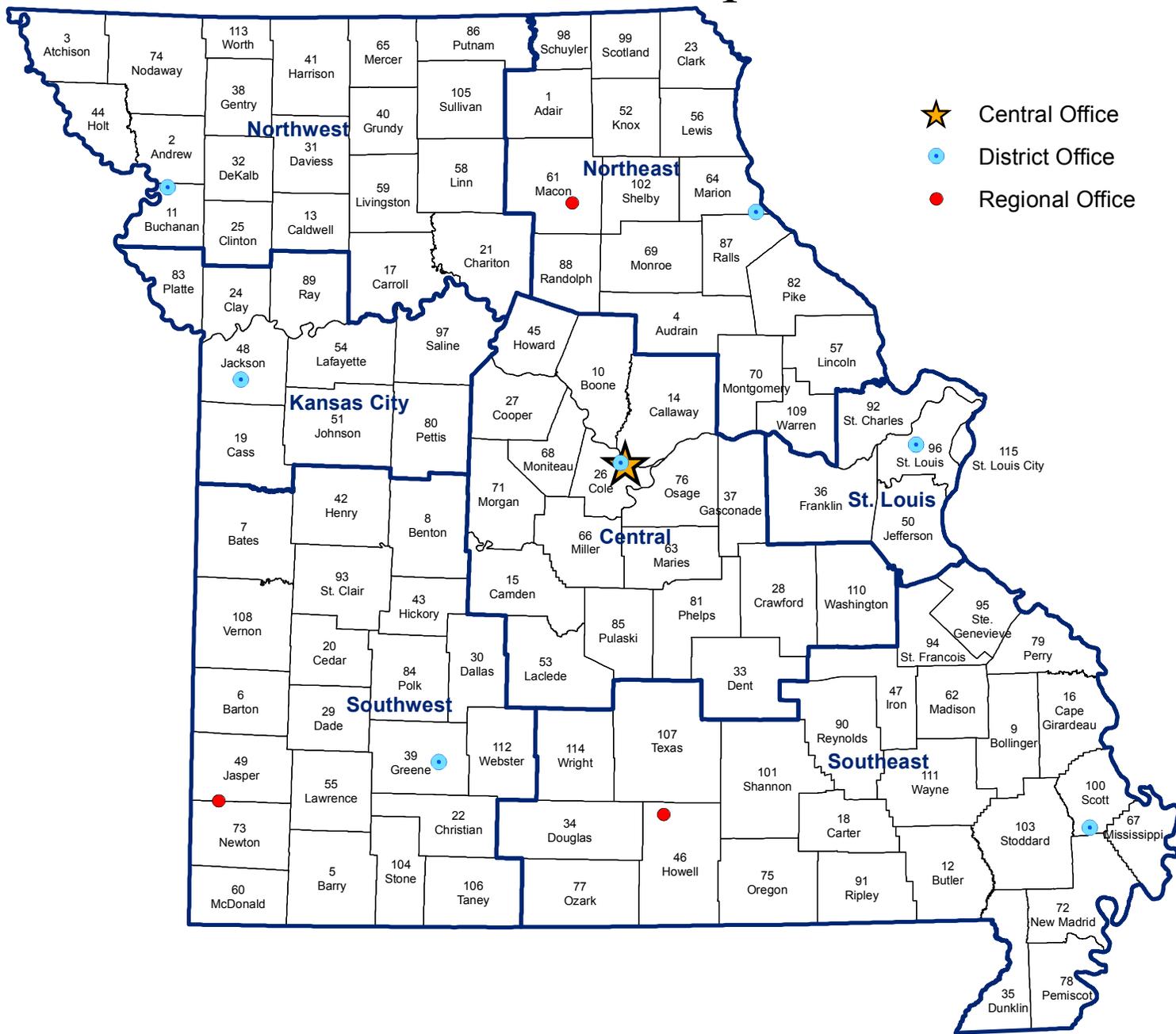
Report the results, to the nearest 0.1 percent, as follows:

% Calcium Carbonate (CaCO<sub>3</sub>)

% Magnesium Carbonate (MgCO<sub>3</sub>)



# Missouri Department of Transportation District Map



County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.	County	No. Dist.						
Adair	1	NE	Chariton	21	NW	Harrison	41	NW	Macon	61	NE	Phelps	81	C	Shannon	101	SE
Andrew	2	NW	Christian	22	SW	Henry	42	SW	Madison	62	SE	Pike	82	NE	Shelby	102	NE
Atchison	3	NW	Clark	23	NE	Hickory	43	SW	Maries	63	C	Platte	83	KC	Stoddard	103	SE
Audrian	4	NE	Clay	24	KC	Holt	44	NW	Marion	64	NE	Polk	84	SW	Stone	104	SW
Barry	5	SW	Clinton	25	NW	Howard	45	C	Mercer	65	NW	Pulaski	85	C	Sullivan	105	NW
Barton	6	SW	Cole	26	C	Howell	46	SE	Miller	66	C	Putnam	86	NW	Taney	106	SW
Bates	7	SW	Cooper	27	C	Iron	47	SE	Mississippi	67	SE	Ralls	87	NE	Texas	107	SE
Benton	8	SW	Crawford	28	C	Jackson	48	KC	Moniteau	68	C	Randolph	88	NE	Vernon	108	SW
Bollinger	9	SE	Dade	29	SW	Jasper	49	SW	Monroe	69	NE	Ray	89	KC	Warren	109	NE
Boone	10	C	Dallas	30	SW	Jefferson	50	SL	Montgomery	70	NE	Reynolds	90	SE	Washington	110	C
Buchanan	11	NW	Daviess	31	NW	Johnson	51	KC	Morgan	71	C	Ripley	91	SE	Wayne	111	SE
Butler	12	SE	DeKalb	32	NW	Knox	52	NE	New Madrid	72	SE	St. Charles	92	SL	Webster	112	SW
Caldwell	13	NW	Dent	33	C	Laclede	53	C	Newton	73	SW	St. Clair	93	SW	Worth	113	NW
Callaway	14	C	Douglas	34	SE	Lafayette	54	KC	Nodaway	74	NW	St. Francois	94	SE	Wright	114	SE
Camden	15	C	Dunklin	35	SE	Lawrence	55	SW	Oregon	75	SE	Ste. Genevieve	95	SE	St. Louis City	115	SL
Cape Girardeau	16	SE	Franklin	36	SL	Lewis	56	NE	Ozark	76	C	St. Louis	96	SL			
Carroll	17	NW	Gasconade	37	C	Lincoln	57	NE	Pemiscot	77	SE	Saline	97	KC			
Carter	18	SE	Gentry	38	NW	Linn	58	NW	Perry	78	SE	Schuyler	98	NE			
Cass	19	KC	Greene	39	SW	Livingston	59	NW	Stoddard	103	SE	Scotland	99	NE			
Cedar	20	SW	Grundy	40	NW	McDonald	60	SW	Pettis	80	KC	Scott	100	SE			

