

# NOTICE

Please note this bid from CARGILL INC DEICING TECHNOLOGY BUSINESS UNIT for the solicitation CRFQ DOT2400000052 was received at the Purchasing Division office prior to the established bid-opening date and time on December 14, 2023, but did not load properly at the public bid opening due to the vendor, CARGILL INC DEICING TECHNOLOGY BUSINESS UNIT, submitting their electronic response under a vendor/customer record discontinued by the wvOASIS agency. Vendors should be aware that electronic responses to online solicitations should be submitted under a vendor/customer record designated as "Active" in the wvOASIS system for their business entity. This response has since been loaded and is now posted.



Greg Clay

Assistant Purchasing Director



Totten, Mark L <mark.l.totten@wv.gov>

### CRFQ DOT240000052 SR ESR1213230000002805 is now Final

Lisa Comer <lisa.comer@wvoasis.gov>

Thu, Dec 14, 2023 at 1:54 PM

To: Mark Totten <mark.l.totten@wv.gov>, "Clay, Gregory C" <gregory.c.clay@wv.gov>, "Estep, John W" <john.w.estep@wv.gov>  
Cc: Finance Team <FinanceTeam@wvoasis.gov>

The subject line SR submitted in VSS failed to submit to Final in the Financial application upon syncing from VSS. Note the SR was a valid, successfully submitted response in VSS that only failed to submit to Final in Financials due to the Vendor Active Status being a status other than "Active". The SR is now Final to allow it to be loaded to the EV document. Note the Vendor Active Status on VCUST for this vendor is currently "Discontinued". A note indicates the vendor should be using the Headquarter account 000000183942.

The screenshot shows the wvoasis application interface. At the top, there is a navigation bar with tabs for 'Procurement', 'Budgeting', 'Accounts Receivable', and 'Accounts Payable'. Below this is a table with columns for Severity, Component, Line Number, Override, Message, and Description. An error message is displayed: 'The vendor must be an active vendor on the vendor customer table. (A1055)'. The main content area is titled 'General Information' and contains the following details:

- Procurement Folder: 1336154
- Procurement Type: Central Master Agreement
- Vendor ID: 000000183941
- Legal Name: CARGILL INC DEICING TECHNOLOGY BUSINESS UNIT
- Alias/DBA:
- Total Bid: \$0.00
- Response Date: 12/14/2023
- Response Time: 10:46
- Responded By User ID: CargillDeicing
- First Name: Deseree
- Last Name: Caver
- Email: salt\_customerarcareroadsafety
- Phone: 800-600-7258
- SO Doc Code: CRFQ
- SO Dept: 0803
- SO Doc ID: DOT240000052
- Published Date: 12/11/23
- Close Date: 12/14/23
- Close Time: 13:30
- Status: Closed
- Solicitation Description: Roadway Salt - Sodium Chloride 6624C041
- Total of Header Attachments: 2
- Total of All Attachments: 2

Thank you,

**Lisa Comer**

Finance Team

WV Enterprise Resource Planning Board

Phone: 304-935-0487

Email: [FinanceTeam@wvoasis.gov](mailto:FinanceTeam@wvoasis.gov)

Web: [wvoasis.gov](http://wvoasis.gov)





The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

## Header 2

List View

**General Information** | [Contact](#) | [Default Values](#) | [Discount](#) | [Document Information](#) | [Clarification Request](#)

Procurement Folder: 1336154

Procurement Type: Central Master Agreement

Vendor ID:

Legal Name: CARGILL INC DEICING TECHNOLOGY BUSINESS UNIT

Alias/DBA:

Total Bid: \$0.00

Response Date:

Response Time:

Responded By User ID:

First Name:

Last Name:

Email:

Phone:

SO Doc Code: CRFQ

SO Dept: 0803

SO Doc ID: DOT2400000052

Published Date: 12/11/23

Close Date: 12/14/23

Close Time: 13:30

Status: Closed

Solicitation Description:

Total of Header Attachments: 2

Total of All Attachments: 2



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

**State of West Virginia  
 Solicitation Response**

**Proc Folder:** 1336154  
**Solicitation Description:** Roadway Salt - Sodium Chloride 6624C041  
**Proc Type:** Central Master Agreement

Solicitation Closes	Solicitation Response	Version
2023-12-14 13:30	SR 0803 ESR12132300000002805	1

**VENDOR**  
 000000183941  
 CARGILL INC DEICING TECHNOLOGY BUSINESS UNIT

**Solicitation Number:** CRFQ 0803 DOT2400000052  
**Total Bid:** 0  
**Response Date:** 2023-12-14  
**Response Time:** 10:46:19  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**  
 John W Estep  
 304-558-2566  
 john.w.estep@wv.gov

**Vendor Signature X** **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Roadway Salt - Sodium Chloride - DELIVERY	0.00000	TON	1.000000	0.00

Comm Code	Manufacturer	Specification	Model #
46161506			

**Commodity Line Comments:**

**Extended Description:**

DELIVERY of roadway salt by Vendor to WVDOH Agency delivery locations, as specified on the ATT A Pricing Pages and Delivery Site spreadsheet.

VENDOR NOTE: Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Roadway Salt - Sodium Chloride - PICK-UP	0.00000	TON	1.000000	0.00

Comm Code	Manufacturer	Specification	Model #
46161506			

**Commodity Line Comments:**

**Extended Description:**

PICK-UP of roadway salt by a WVDOH Agency from a Vendor's source site.

VENDOR NOTE: Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 1 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 1</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Boone</i>	Clinton @ WV85	100	
	Rock Creek	0	
	Seth	0	
<b><i>Boone County Total Estimated</i></b>		<b>100</b>	<b>\$110.15</b>
<i>Clay</i>	Widen Road & CR 11	0	
	Maysel	0	
<b><i>Clay County Total Estimated</i></b>		<b>0</b>	
<i>Kanawha</i>	Chelyan	0	
	Elkview	0	
	North Charleston	0	
	St. Albans	0	
	I-64 @ Rt. 119 and Penn. Avenue	300	
	I-77 @ Sissonville	300	
	I-79 @ Amma	300	
	Corridor G @ Alum Creek	300	
<b><i>Kanawha County Total Estimated</i></b>		<b>1,200</b>	<b>\$102.32</b>
<i>Mason</i>	Glenwood	0	
	Pt. Pleasant @ Fairground Rd.	300	
	Pt. Pleasant @ Jackson Ave.	0	
<b><i>Mason County Total Estimated</i></b>		<b>300</b>	<b>\$103.87</b>
<i>Putnam</i>	Red House	0	
	Hurricane @ Rt. 34	0	
	I-64 @ Scary Creek	300	
<b><i>Putnam County Total Estimated</i></b>		<b>300</b>	<b>\$99.88</b>
<b>DISTRICT 1 TOTAL</b>		<b>1,900</b>	



**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 2 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

DISTRICT 2			
County	Delivery Site Location	Estimated Quantity	Vendor Bid Price (cost per ton)
<i>Cabell</i>	Barboursville / Cabell Co. HQ	800	
	Huntington I-64 Section 1	850	
	Huntington 31st Bridge	0	
	Huntington 17th St. Bridge	0	
<b><i>Cabell County Total</i></b>		<b>1,650</b>	<b>\$95.55</b>
<i>Lincoln</i>	West Hamlin	700	
	Yawkey	200	
	Harts	300	
<b><i>Lincoln County Total</i></b>		<b>1,200</b>	\$98.76
<i>Logan</i>	Corridor G @ Chapmanville	550	
	Wilkinson Substation	150	
	Man Substation	100	
	Hickory Lane	0	
<b><i>Logan County Total</i></b>		<b>800</b>	\$105.12
<i>Mingo</i>	Corridor G @ Miller's Creek, Bldg #03011	100	
	Mingo Cty @Miller's Creek, Bldg #03025	100	
	Gilbert Substation	100	
	Mingo 119 South	0	
<b><i>Mingo County Total</i></b>		<b>300</b>	\$110.34
<i>Wayne</i>	Pritchard Substation	0	
	Wayne County Headquarters	1,300	
	Crum Substation	0	
	Heartland Intermodal Gateway	0	
<b><i>Wayne County Total</i></b>		<b>1,300</b>	\$97.37
<b>DISTRICT 2 TOTAL</b>		<b>5,250</b>	

**ROADWAY SALT - SODIUM CHORIDE**  
**Attachment A Pricing Pages**  
**District 3 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 3</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Calhoun</i>	Millstone	500	
<b><i>Calhoun County Total</i></b>		<b>500</b>	<b>\$124.98</b>
<i>Jackson</i>	Ripley / Jackson Co. HQ	1,900	
	I-77 @ Medina	900	
<b><i>Jackson County Total</i></b>		<b>2,800</b>	<b>\$108.45</b>
<i>Pleasants</i>	Belmont	1,000	
<b><i>Pleasants County Total</i></b>		<b>1,000</b>	<b>\$127.73</b>
<i>Ritchie</i>	APD Pennsboro	700	
	Ellenboro / Harrisville Substation	2,000	
	Greenwood	350	
	Corridor D @ Nutter Farm	350	
	Smithville Substation	350	
<b><i>Ritchie County Total</i></b>		<b>3,750</b>	<b>\$102.56</b>
<i>Roane</i>	Lefthand @ WV 36	150	
	Ambler Ridge Substation @ US 119	150	
	Roane County HQ	1,200	
<b><i>Roane County Total</i></b>		<b>1,500</b>	<b>\$104.47</b>
<i>Wirt</i>	Harrisville Substation	750	
<b><i>Wirt County Total</i></b>		<b>750</b>	<b>\$106.44</b>
<i>Wood</i>	Parkersburg @ Rt. 95S	100	
	I-77 @ Parkersburg	100	
	Corridor D @ Riverhill	100	
<b><i>Wood County Total</i></b>		<b>300</b>	<b>\$124.37</b>
<b>DISTRICT 3 TOTAL</b>		<b>10,600</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 4 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 4</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Doddridge</i>	West Union	1,000	
<b><i>Doddridge County Total</i></b>		<b>1,000</b>	<b>\$97.66</b>
<i>Harrison</i>	Harrison Co. HQ	5,500	
	Saltwell	500	
	Lost Creek Substation	1,500	
	Tunnel Hill Substation	1,500	
<b><i>Harrison County Total</i></b>		<b>9,000</b>	<b>\$99.94</b>
<i>Marion</i>	Marion Co. HQ	1,500	
	Mannington Substation	1,000	
<b><i>Marion County Total</i></b>		<b>2,500</b>	<b>\$99.96</b>
<i>Monongalia</i>	Goshen Rd. Substation	2,000	
	Monongalia Co. HQ	5,000	
	Pentress Substation	1,000	
<b><i>Monongalia County Total</i></b>		<b>8,000</b>	<b>\$92.15</b>
<i>Preston</i>	Bruceton Mills Substation	2,500	
	Preston Co. HQ	1,200	
	Terra Alta Substation	1,000	
	Fellowsville Substation	1,000	
	Aurora Substation	1,000	
	Cooper's Rock Substation	2,000	
<b><i>Preston County Total</i></b>		<b>8,700</b>	<b>\$92.00</b>
<i>Taylor</i>	Taylor Co. HQ	1,600	
<b><i>Taylor County Total</i></b>		<b>1,600</b>	<b>\$93.44</b>
<b>DISTRICT 4 TOTAL</b>		<b>30,800</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 5 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 5</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Berkeley</i>	Martinsburg Headquarters - 0571 Storage Bldg	500	
	Tabler Station - 0502 Storage Bldg	500	
	Berkeley County Headquarters	500	
<b><i>Berkeley County Total</i></b>		<b>1,500</b>	<b>\$96.21</b>
<i>Grant</i>	Grant Co. HQ	200	
	Mt. Storm Substation	1,000	
	Corridor H @ Knobley Road	500	
<b><i>Grant County Total</i></b>		<b>1,700</b>	<b>\$104.43</b>
<i>Hampshire</i>	Hampshire Co. HQ	500	
	Capon Bridge Substation	400	
	Slanesville	300	
<b><i>Hampshire County Total</i></b>		<b>1,200</b>	<b>\$103.45</b>
<i>Hardy</i>	Hardy Co. HQ	500	
	Baker Substation	500	
<b><i>Hardy County Total</i></b>		<b>1,000</b>	<b>\$122.37</b>
<i>Jefferson</i>	Jefferson County Headquarters - 0519 Storage Bldg	500	
	9/340 Expressway Headquarters - 0564 Storage Bldg	500	
<b><i>Jefferson County Estimated Total</i></b>		<b>1,000</b>	<b>\$93.87</b>
<i>Mineral</i>	Mineral Co. HQ	500	
	Skyline Substation	400	
	Short Gap Substation	300	
	District 5 HQ	100	
<b><i>Mineral County Total</i></b>		<b>1,300</b>	<b>\$108.54</b>
<i>Morgan</i>	Morgan Co. HQ	500	
	Largent Substation	300	
<b><i>Morgan County Total</i></b>		<b>800</b>	<b>\$102.97</b>
<b>DISTRICT 5 TOTAL</b>		<b>8,500</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 6 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 6</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Brooke</i>	Brooke County HQ	1,500	
	US 22 Substation	1,500	
<b><i>Brooke County Total</i></b>		<b>3,000</b>	<b>\$92.86</b>
<i>Hancock</i>	Hancock County HQ	2,000	
	<b><i>Hancock County Total</i></b>		
			<b>\$96.67</b>
<i>Marshall</i>	Marshall Co. HQ	2,900	
	Lynn Camp Substation	700	
	Cameron Substation	1,550	
	Sand Hill Substation	650	
<b><i>Marshall County Total</i></b>		<b>5,800</b>	<b>\$116.23</b>
<i>Ohio</i>	Ohio Co. HQ	2,000	
	I-70 Interstate HQ	3,500	
<b><i>Ohio County Total</i></b>		<b>5,500</b>	<b>\$93.42</b>
<i>Tyler</i>	Tyler Co. HQ	1,100	
	Centerville Substation	800	
<b><i>Tyler County Total</i></b>		<b>1,900</b>	<b>\$119.93</b>
<i>Wetzel</i>	Wetzel Co. HQ	1,100	
	Pine Grove Substation	700	
	Hundred Substation	900	
<b><i>Wetzel County Total</i></b>		<b>2,700</b>	<b>\$125.06</b>
<b>DISTRICT 6 TOTAL</b>		<b>20,900</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 7 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 7</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Barbour</i>	Barbour Co. HQ (000111)	1400	
	Belington Substation (000113)	1100	
<b><i>Barbour County Total</i></b>		<b>2,500</b>	<b>\$97.12</b>
<i>Braxton</i>	Braxton County HQ (000444)	800	
	Heaters Substation (000431)	600	
	Coon Knob Substation (000405)	1200	
	Burnsville Substation (000432)	1300	
<b><i>Braxton County Total</i></b>		<b>3,900</b>	<b>\$101.22</b>
<i>Gilmer</i>	Gilmer County HQ (001110)	700	
<b><i>Gilmer County Total</i></b>		<b>700</b>	<b>\$126.65</b>
<i>Lewis</i>	Lewis County HQ (002108)	1200	
	APD (Weston Mudlick) (002187)	900	
<b><i>Lewis County Total</i></b>		<b>2,100</b>	<b>\$103.12</b>
<i>Upshur</i>	Clow Lot/Upshur County HQ (004912)	2400	
	Tennerton/Upshur County SubHQ (004903)	100	
	Kanawha Head	800	
<b><i>Upshur County Total</i></b>		<b>3,300</b>	<b>\$99.67</b>
<i>Webster</i>	Cherry Falls	400	
	RT 20/Cowen Substation (005110)	0	
	Webster County HQ @ Bolair	1000	
	Hacker Valley Substation (005120)	100	
<b><i>Webster County Total</i></b>		<b>1,500</b>	<b>\$101.56</b>
<b>DISTRICT 7 TOTAL</b>		<b>14,000</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 8 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 8</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Pendleton</i>	Franklin, 220 North	500	
	Judy Gap Substation	400	
	Brandywine Stockpile	250	
	Sugar Grove Substation	300	
	Onego Stockpile	50	
	Franklin Rt. 220 South Lot	200	
<b><i>Pendleton County Total</i></b>		<b>1,700</b>	<b>\$102.11</b>
<i>Pocahontas</i>	Pocahontas County HQ	800	
	Seebert Stockpile	500	
	Green Bank Substation	400	
	Bartow Lot	500	
	Snowshoe Stockpile	100	
	Slaty Fork Stockpile	300	
<b><i>Pocahontas County Total</i></b>		<b>2,600</b>	<b>\$99.87</b>
<i>Randolph</i>	Randolph Co. HQ	800	
	Harman Substation	550	
	Coalton Substation	650	
	Alpena Saltshed	150	
	Valley Head Substation	500	
	Mill Creek Substation	550	
	Pickens Substation	300	
	Corridor H	800	
<b><i>Randolph County Total</i></b>		<b>4,300</b>	<b>\$99.83</b>
<i>Tucker</i>	Tucker Co. HQ	700	
	Thomas Substation	700	
	Corrido H - Thomas	500	
<b><i>Tucker County Total</i></b>		<b>1,900</b>	<b>\$98.99</b>
<b>DISTRICT 8 TOTAL</b>		<b>10,500</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 9 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

Vendor Name: Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 9</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Fayette</i>	Oak Hill APD	5,700	
	Lookout Substation	0	
	Falls View Substation	500	
<b><i>Fayette County Estimated Total</i></b>		<b>6,200</b>	<b>\$111.45</b>
<i>Greenbrier</i>	Greenbrier Co. HQ	1,500	
	Crawley Substation	3,200	
	Hart's Run Substation	1,300	
<b><i>Greenbrier County Estimated Total</i></b>		<b>6,000</b>	<b>\$111.23</b>
<i>Monroe</i>	Monroe Co. HQ	800	
	Peterstown Substation	600	
<b><i>Monroe County Estimated Total</i></b>		<b>1,400</b>	<b>\$132.21</b>
<i>Nicholas</i>	Nicholas Co. HQ	3,000	
	Curtin Substation	2,000	
	Corridor L/Muddlety Substation	3,000	
<b><i>Nicholas County Estimated Total</i></b>		<b>8,000</b>	<b>\$106.15</b>
<i>Summers</i>	Summers Co. HQ	1,400	
<b><i>Summers County Estimated Total</i></b>		<b>1,400</b>	<b>NO BID</b>
<b>DISTRICT 9 TOTAL</b>		<b>23,000</b>	



**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**District 10 - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>DISTRICT 10</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>McDowell</i>	McDowell County HQ	1,800	
	Yukon Substation	270	
	Johnny Cake Substation	450	
	Raysal	450	
<b><i>McDowell County Estimated Total</i></b>		<b>2,970</b>	<b>\$139.14</b>
<i>Mercer</i>	Mercer County HQ	2,340	
	Flat Top Substation	270	
	I-77 near Princeton	2,340	
<b><i>Mercer County Estimated Total</i></b>		<b>4,950</b>	<b>NB</b>
<i>Raleigh</i>	Raleigh County HQ	7,200	
	Bolt Substation	90	
	Bragg Substation	4,500	
<b><i>Raleigh County Estimated Total</i></b>		<b>11,790</b>	<b>\$117.22</b>
<i>Wyoming</i>	Wyoming County HQ	2,700	
	Still Run Substation	900	
	Hanover Outpost	90	
<b><i>Wyoming County Estimated Total</i></b>		<b>3,690</b>	<b>\$120.21</b>
<b>DISTRICT 10 TOTAL</b>		<b>23,400</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**WV Parkways Authority - Delivery**

Vendor shall complete ATT A by providing a price per ton for the delivery of roadway salt to any or all Counties listed. Vendor shall NOT add, delete or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities. Exhibit A - "WVDOH Delivery Site Information" contains detailed location and contact information for delivery site locations listed below.

**Vendor Name:** Cargill, Incorporated -Salt, Road Safety

<b>WV PARKWAYS AUTHORITY</b>			
<b>County</b>	<b>Delivery Site Location</b>	<b>Estimated Quantity</b>	<b>Vendor Bid Price (cost per ton)</b>
<i>Kanawha</i>	Chelyan Maintenance	3000	
	Standard Maintenance	2900	
<b><i>Kanawha County Estimated Total</i></b>		<b>5,900</b>	<b>\$104.34</b>
<i>Mercer</i>	Princeton Maintenance	1500	
	<b><i>Mercer County Estimated Total</i></b>		<b>1,500</b>
<i>Raleigh</i>	Beckley Maintenance	6700	
	Ghent Maintenance	4100	
<b><i>Raleigh County Estimated Total</i></b>		<b>10,800</b>	<b>\$118.23</b>
<b>WV PARKWAYS' TOTAL</b>		<b>18,200</b>	

**ROADWAY SALT - SODIUM CHLORIDE**  
**Attachment A Pricing Pages**  
**Agency Pick-up**

Vendor shall provide a physical 911 address and provide a price per ton for roadway salt to be available for pick-up by WVDOH Agencies. Vendor pricing shall include cost of Vendor loading Agency trucks.

Cargill, Incorporated -Salt, Road Safety

Vendor Storage Site Locations	Vendor Bid Price (cost per ton)
Wurtland	<b>\$87.00</b>
1004 Port Rd	
Wurtland, KY 41144	
Elkins	<b>\$80.00</b>
18357 Harrison Rt. 33 West/ 92	
Elkins, WV 26241	



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

State of West Virginia  
 Centralized Request for Quote  
 Highways

<b>Proc Folder:</b> 1336154		<b>Reason for Modification:</b>	
<b>Doc Description:</b> Roadway Salt - Sodium Chloride 6624C041		ADDENDUM NO_2 Vendor Questions and responses	
<b>Proc Type:</b> Central Master Agreement			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2023-12-11	2023-12-14 13:30	CRFQ 0803 DOT2400000052	3

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:** 000000183941

**Vendor Name :** Cargill, Incorporated-Salt,-Road Safety

**Address :** 24950

**Street :** Country Club Blvd., Suite 450

**City :** North Olmsted


**State :** Ohio **Country :** United States **Zip :** 44070

**Principal Contact :** Deseree Caver

**Vendor Contact Phone:** 8000-600-7258 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**

John W Estep  
 304-558-2566  
 john.w.estep@wv.gov

**Vendor Signature X**  **FEIN#** 41-0176680 **DATE** 12/13/2023

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION****ADDENDUM NO\_2**

Addendum No\_2 issued to publish and distribute the attached information to the Vendor Community

**REQUEST FOR QUOTATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways and the West Virginia Parkways Authority to establish an open end, multiple award contract for the delivery of sodium chloride, F.O.B. for use in snow removal and ice control throughout the state of West Virginia. Vendor may also provide options for WVDOH pick-up from its storage sites. Per the Bid Requirements, Specifications, Terms and Conditions attached to this solicitation.

**INVOICE TO****SHIP TO**

VARIOUS AGENCY  
LOCATIONS  
AS INDICATED BY ORDER

STATE OF WEST VIRGINIA  
  
VARIOUS LOCATIONS AS  
INDICATED BY ORDER

No City                      WV  
US

No City                      WV  
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Roadway Salt - Sodium Chloride - DELIVERY	0.00000	TON		

Comm Code	Manufacturer	Specification	Model #
46161506			

**Extended Description:**

DELIVERY of roadway salt by Vendor to WVDOH Agency delivery locations, as specified on the ATT A Pricing Pages and Delivery Site spreadsheet.

**VENDOR NOTE:** Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA  VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Roadway Salt - Sodium Chloride - PICK-UP	0.00000	TON		

Comm Code	Manufacturer	Specification	Model #
46161506			

**Extended Description:**

PICK-UP of roadway salt by a WVDOH Agency from a Vendor's source site.

VENDOR NOTE: Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Tech Questions due by 10:00am	2023-12-08

# SOLICITATION NUMBER: CRFQ DOT2400000052

## Addendum Number: 2

The purpose of this addendum is to modify the solicitation identified as CRFQ DOT2400000052 ("Solicitation") to reflect the change(s) identified and described below.

### Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

### Additional Documentation:

Vendor Questions and Responses

Bid Opening remains 12/14/2023 at 1:30pm

### Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**SOLICITATION NUMBER – CRFQ DOT2400000052**  
**Addendum Number: 2**

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**Responses to Vendor Posed Questions:**  
***Roadway Salt – Sodium Chloride 6624C041***

**Question:**

In The General terms and conditions it states that this is an open ended contract. In the specifications it states a purchase guarantee and a supplier guarantee. Can you please clarify that there is a minimum and maximum tonnage?

**Response:**

*This is an open-end contract. The exact tonnage that the WVDOH will need to order over the life of the contract is unknown. However, for the Roadway Salt contract, the WVDOH does have a Purchase Guarantee and Supply Guarantee, with minimums and maximums, as stated in Sections 5.4 and 5.5 of the Contract Specifications. We have found this to be standard practice for the Roadway Salt industry for our surrounding states.*



**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFQ DOT240000052**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input type="checkbox"/> Addendum No. 1            | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Cargill, Incorporated-Salt Road Safety

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Company



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Authorized Signature

December 13, 2023

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Date

**NOTE:** This addendum acknowledgment should be submitted with the bid to expedite document processing.



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

State of West Virginia  
 Centralized Request for Quote  
 Highways

<b>Proc Folder:</b> 1336154		<b>Reason for Modification:</b>	
<b>Doc Description:</b> Roadway Salt - Sodium Chloride 6624C041		ADDENDUM NO_1 Vendor Question and Response.	
<b>Proc Type:</b> Central Master Agreement			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2023-12-07	2023-12-14 13:30	CRFQ 0803 DOT2400000052	2

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:** 000000183941  
**Vendor Name :** Cargill, Incorporated-Salt, Road Safety  
**Address :** 34950  
**Street :** Country Club Blvd., Suite 450  
**City :** North Olmsted  
**State :** Ohio **Country :** United States **Zip :** 44070  
**Principal Contact :** Deseree Caver  
**Vendor Contact Phone:** 800-600-7258 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**  
 John W Estep  
 304-558-2566  
 john.w.estep@wv.gov

**Vendor Signature X** *Deseree Caver* **FEIN#** 41-0177680 **DATE** 12/13/2023

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION**

**ADDENDUM NO\_1**

Addendum No\_1 issued to publish and distribute the attached information to the Vendor Community

**REQUEST FOR QUOTATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways and the West Virginia Parkways Authority to establish an open end, multiple award contract for the delivery of sodium chloride, F.O.B. for use in snow removal and ice control throughout the state of West Virginia. Vendor may also provide options for WVDOH pick-up from its storage sites. Per the Bid Requirements, Specifications, Terms and Conditions attached to this solicitation.

<b>INVOICE TO</b>	<b>SHIP TO</b>
-------------------	----------------

VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER	STATE OF WEST VIRGINIA
No City US	No City US
WV	WV
	VARIOUS LOCATIONS AS INDICATED BY ORDER

<b>Line</b>	<b>Comm Ln Desc</b>	<b>Qty</b>	<b>Unit Issue</b>	<b>Unit Price</b>	<b>Total Price</b>
1	Roadway Salt - Sodium Chloride - DELIVERY	0.00000	TON		

<b>Comm Code</b>	<b>Manufacturer</b>	<b>Specification</b>	<b>Model #</b>
46161506			

**Extended Description:**  
DELIVERY of roadway salt by Vendor to WVDOH Agency delivery locations, as specified on the ATT A Pricing Pages and Delivery Site spreadsheet.

**VENDOR NOTE:** Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
No City US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Roadway Salt - Sodium Chloride - PICK-UP	0.00000	TON		

Comm Code	Manufacturer	Specification	Model #
46161506			

**Extended Description:**

PICK-UP of roadway salt by a WVDOH Agency from a Vendor's source site.

VENDOR NOTE: Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Tech Questions due by 10:00am	2023-12-08

# SOLICITATION NUMBER: CRFQ DOT2400000052

## Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as CRFQ DOT2400000052 ("Solicitation") to reflect the change(s) identified and described below.

### Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

### Additional Documentation:

Vendor Questions and Responses

Bid Opening remains 12/14/2023 at 1:30pm

### Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**SOLICITATION NUMBER – CRFQ DOT2400000052**  
**Addendum Number: 1**

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**Responses to Vendor Posed Questions:**  
**Roadway Salt – Sodium Chloride 6624C041**

**Question:**

Just so we make sure we complete the bid correctly, what is the state looking for with this documentation?

1. Do we need to type up our own letter?
  - a. If so what requirements needs to be included?
2. Is this a document that needs to be completed and signed?
  - a. We did not see any additional pages, but let me know if we missed something.

*... of these the mandatory requirements to show below.*

**3.2.1 Sodium Chloride:** Vendor provided sodium chloride shall conform to the requirements of ASTM D632 (Reference Exhibit 1 "EXH 1") and testing requirements of ASTM E534 (Reference Exhibit 2 "EXH 2"). Vendor should provide its sodium chloride supplier certification of quality and gradation and MSDS information prior to contract award.

**3.2.1.1** If an anti-clumping agent may be applied to Vendor provided sodium chloride, Vendor should provide MSDS information for its anti-clumping agent prior to contract award.

✘

**Response:**

*A Certificate of Quality, also known as a Certificate of Analysis, should be available from a vendor's source/supplier. These documents show the testing method of shipment samples taken and the testing results showing compliance with the grade specifications.*

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFO DOT240000052**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Cargill, Incorporated-Salt, Road Safety

\_\_\_\_\_  
Company



\_\_\_\_\_  
Authorized Signature

December 13, 2023

\_\_\_\_\_  
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.



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

State of West Virginia  
 Centralized Request for Quote  
 Highways

Proc Folder: 1336154			Reason for Modification:
Doc Description: Roadway Salt - Sodium Chloride 6624C041			
Proc Type: Central Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2023-12-04	2023-12-14 13:30	CRFQ 0803 DOT2400000052	1

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

Vendor Customer Code: 000000183941

Vendor Name : Cargill, Incorporated-Salt, Road Safety

Address : 24950

Street : Country Club Blvd., Suite 450

City : North Olmsted


State : Ohio Country : United States Zip : 44070

Principal Contact : Deseree Caver

Vendor Contact Phone: 800-600-7258 Extension:

**FOR INFORMATION CONTACT THE BUYER**

John W Estep  
 304-558-2566  
 john.w.estep@wv.gov

Vendor Signature X  FEIN# 41-0177680 DATE 12/13/2023

All offers subject to all terms and conditions contained in this solicitation



**ADDITIONAL INFORMATION****REQUEST FOR QUOTATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways and the West Virginia Parkways Authority to establish an open end, multiple award contract for the delivery of sodium chloride, F.O.B. for use in snow removal and ice control throughout the state of West Virginia. Vendor may also provide options for WVDOH pick-up from its storage sites. Per the Bid Requirements, Specifications, Terms and Conditions attached to this solicitation.

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA	
No City US		No City US	
WV		WV	
AS INDICATED BY ORDER		VARIOUS LOCATIONS AS INDICATED BY ORDER	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Roadway Salt - Sodium Chloride - DELIVERY	0.00000	TON		

Comm Code	Manufacturer	Specification	Model #
46161506			

**Extended Description:**

DELIVERY of roadway salt by Vendor to WVDOH Agency delivery locations, as specified on the ATT A Pricing Pages and Delivery Site spreadsheet.

**VENDOR NOTE:** Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

INVOICE TO		SHIP TO	
VARIOUS AGENCY LOCATIONS AS INDICATED BY ORDER		STATE OF WEST VIRGINIA	
No City US		No City US	
WV		WV	
		VARIOUS LOCATIONS AS INDICATED BY ORDER	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Roadway Salt - Sodium Chloride - PICK-UP	0.00000	TON		

Comm Code	Manufacturer	Specification	Model #
46161506			

**Extended Description:**

PICK-UP of roadway salt by a WVDOH Agency from a Vendor's source site.

VENDOR NOTE: Bid evaluation will be based on the bid prices submitted on the Pricing Pages Attachment A (ATT A) and Attachment B(ATT B). Vendor's entries of bid prices or other notations made in the wvOASIS commodity lines/descriptions will not be considered for bid evaluation or award.

**SCHEDULE OF EVENTS**

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Tech Questions due by 10:00am	2023-12-08

	Document Phase	Document Description	Page
DOT2400000052	Final	Roadway Salt - Sodium Chloride 6624C041	4

**ADDITIONAL TERMS AND CONDITIONS**

See attached document(s) for additional Terms and Conditions

## **GENERAL TERMS AND CONDITIONS:**

**1. CONTRACTUAL AGREEMENT:** Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

**2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

**2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

**2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.

**2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

**2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.

**2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.

**2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

**2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

**2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

**2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

**3. CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

**Term Contract**

**Initial Contract Term:** The Initial Contract Term will be for a period of the contract's initial effective date through August 31, 2024. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

**Renewal Term:** This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to zero (0) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Alternate Renewal Term** – This contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

**Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within \_\_\_\_\_ days.

**Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within \_\_\_\_\_ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that:

the contract will continue for \_\_\_\_\_ years;

the contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's Office (Attorney General approval is as to form only).

**One-Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

**Construction/Project Oversight:** This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and continues until the project for which the vendor is providing oversight is complete.

**Other:** Contract Term specified in \_\_\_\_\_

**4. AUTHORITY TO PROCEED:** Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

**5. QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

**Open End Contract:** Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

**Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

**Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

**One-Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

**Construction:** This Contract is for construction activity more fully defined in the specifications.

**6. EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One-Time Purchase contract.

**7. REQUIRED DOCUMENTS:** All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

**LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

**8. INSURANCE:** The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

**Commercial General Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**Automobile Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \_\_\_\_\_ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

**Commercial Crime and Third Party Fidelity Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Cyber Liability Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.



**9. WORKERS' COMPENSATION INSURANCE:** Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. VENUE:** All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

**11. LIQUIDATED DAMAGES:** This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

\_\_\_\_\_ for \_\_\_\_\_.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

**14. PAYMENT IN ARREARS:** Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

**15. PAYMENT METHODS:** Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

**16. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

**17. ADDITIONAL FEES:** Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

**18. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

**19. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

**20. TIME:** Time is of the essence regarding all matters of time and performance in this Contract.

**21. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

**22. COMPLIANCE WITH LAWS:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**23. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

**24. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

**25. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

**26. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

**27. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

**28. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

**29. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

**30. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it 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. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in [www.state.wv.us/admin/purchase/privacy](http://www.state.wv.us/admin/purchase/privacy).

**31. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**32. LICENSING:** In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor 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 agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**33. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

**34. VENDOR NON-CONFLICT:** Neither Vendor nor its representatives are permitted to have any interest, nor shall they acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

**35. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

**36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

**37. NO DEBT CERTIFICATION:** In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the Vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

**38. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

**39. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at [purchasing.division@wv.gov](mailto:purchasing.division@wv.gov).

**40. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

**41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
  1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
  2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

**42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

**43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE:** W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

**44. PROHIBITION AGAINST USED OR REFURBISHED:** Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

**45. VOID CONTRACT CLAUSES:** This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

**46. ISRAEL BOYCOTT:** Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.



**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Deseree Caver/Customer Care Representative

(Address) 24950 Country Club Blvd., Suite 450

(Phone Number) / (Fax Number) 800-600-7258

(email address) salt\_customercareroadsafety@cargill.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

*By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code §A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.*

Cargill, Incorporated-Salt, Road Safety

(Company)

Deseree Caver

(Signature of Authorized Representative)

Deseree Caver/Customer Care Representative

(Printed Name and Title of Authorized Representative) (Date)

800-600-7258/952-367-0655 12/13/2023

(Phone Number) (Fax Number)

salt\_customercareroadsafety@cargill.com

(Email Address)

REQUEST FOR QUOTATION  
Roadway Salt – Sodium Chloride

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**SPECIFICATIONS**

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways and the West Virginia Parkways Authority to establish an open end, multiple award contract for the delivery of sodium chloride, F.O.B. for use in snow removal and ice control throughout the state of West Virginia. Vendor may also provide options for WVDOH pick-up from its storage sites.
  
2. **DEFINITIONS:** The terms listed below shall have the following meanings assigned to them throughout and for the purpose of this Solicitation. Additional definitions can be found in Section 2 of the General Terms and Conditions.
  - 2.1 **“ADO” or “Delivery Order”** - a written order entered by WVDOH personnel in the wvOASIS financial system against a master agreement, authorizing quantities of commodities and/or services to be delivered in accordance with all terms, conditions, and prices stipulated in the original contract.
  
  - 2.2 **“ASTM International” and “ASTM”** – the international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services, formerly known as the American Society for Testing and Materials. Reference: [www.astm.org](http://www.astm.org)
  
  - 2.3 **“Attachment A,” “Pricing Pages,” or “ATT A”** – interchangeable terms referring to the schedule of Pricing Pages attached hereto as **Attachment A (“ATT A”)** upon which Vendor should list its pricing for the delivery of sodium chloride to designated WVDOH locations or for pick-up from Vendor storage locations.
  
  - 2.4 **“Contract Item” or “Item”** – the list of items available for Vendor to provide pricing as identified in Section 3 of this Solicitation and referenced throughout.
  
  - 2.5 **“Contractor” or “Vendor”** – interchangeable terms referring to any person or entity that submits a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded Contract Items through this contract.
  
  - 2.6 **“Emergency Requests”**- requests for Contract Items to be fulfilled without delay, owing to circumstances for which the WVDOH could not have reasonably expected and has been designated as such by a WVDOH District Engineer or their designee.
  
  - 2.7 **“F.O.B.” or “Free on Board”** – indicates that the price for goods includes delivery at the Vendor’s expense to a specified point, and that the Vendor retains liability for loss or damage until the goods are delivered.

**REQUEST FOR QUOTATION**  
**Roadway Salt – Sodium Chloride**

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- 2.8 “Liquidated Damages”** - monetary compensation due from the Vendor in the event the Vendor’s performance falls short of contractual stipulation or breaches the contract. Delays in the delivery of goods and/or services or quality failures or corrections by the Vendor may result in the Agency assessing charges for such deficiencies per these contract Specifications, the Standard Specs Section 108.7, as amended, and calculated from the table posted in Section 6.3.1 of these Specifications.
- 2.9 “MSDS” and “Material Safety Data Sheets”** – detailed informational documents provided by manufacturers outlining the physical and chemical properties of a product, potential physical and health hazards, and procedures for safe handling.
- 2.10 “MP”** - refers to a Materials Procedure per the Materials Control, Soils, and Testing Division of the West Virginia Division of Highways. Reference: <https://transportation.wv.gov/highways/mcst/Pages/WVDOH-Materials-Procedures.aspx>
- 2.11 “Solicitation”** – the official notice of an opportunity to supply the State with goods or services.
- 2.12 “Roadway Salt,” “Sodium Chloride,” or “Material”** – solid masses of salt crystals (NaCl) for use in the de-icing of roadways.
- 2.13 “Standard Specs”** – refers to the West Virginia Department of Transportation, Division of Highways Standard Specifications, Roads and Bridges, most recent edition, as modified or amended by all subsequent Supplemental Specifications.
- 2.14 “WVDOH” or “Agency”**– means the West Virginia Division of Highways.
- 2.15 “WV Parkways” and “Agency”** – means the West Virginia Parkways Authority.

**3. GENERAL REQUIREMENTS:**

- 3.1 Standard Specifications Roads and Bridges:** The following Standard Specs Sections shall apply, as applicable, to the administration of this contract: 101, 102, 103, 104, 105, 106, 107, 108, 109, and 110, as amended.

Material, equipment, and performance of this contract shall conform, but not be limited to, the requirements of Sections 636 and 715, as amended.

A free electronic copy of the Standard Specs may be obtained by sourcing: <https://transportation.wv.gov/highways/TechnicalSupport/specifications/Pages/default.aspx>

REQUEST FOR QUOTATION  
Roadway Salt – Sodium Chloride

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**3.2 Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items specified herein on an open-end and continuing basis, F.O.B. destination or by Agency pick-up from Vendor storage site. Contract Items must meet or exceed the mandatory requirements as shown below.

**3.2.1 Sodium Chloride:** Vendor provided sodium chloride shall conform to the requirements of ASTM D632 (Reference Exhibit 1 “EXH 1”) and testing requirements of ASTM E534 (Reference Exhibit 2 “EXH 2”). Vendor should provide its sodium chloride supplier certification of quality and gradation and MSDS information prior to contract award.

**3.2.1.1** If an anti-clumping agent may be applied to Vendor provided sodium chloride, Vendor should provide MSDS information for its anti-clumping agent prior to contract award.

**3.2.2 Sampling and Testing:** Acceptance shall be based on approval of the suppliers’ certification of quality and gradation. MCS&T may conduct sampling and testing at any time throughout the term of this contract to verify the quality and/or gradation of Vendor provided sodium chloride. Sampling and testing inquiries should be directed to:

WVDOH Materials Control, Soils and Testing Division  
190 Dry Branch Road  
Charleston, WV 25306  
Phone: 304-558-3160

**3.2.3 Moisture Content:** Delivered material shall be covered in transit and moisture content shall not exceed 2.0% by weight for stockpile delivery. Laboratory testing for moisture shall be administered in accordance with ASTM E534, as amended, at any time during the delivery. Upon visual inspection by the Agency/WVDOH District Manager or designee, any supplied sodium chloride that does not appear to meet ASTM D632 standards will be sampled and tested by the WVDOH. In accordance with ASTM D632, no less than three (3) samples will be randomly taken from the delivered material by Agency personnel, witnessed, and signed off on by the delivery driver. The supplier will be notified of sampling within 48 hours and test results within seven (7) business days of test completion. Upon testing, the supplier shall be responsible for moisture content in excess of 2.0% per delivery and shall deduct the excess weight from the price. For example: If a delivery of 75 tons costs \$45.00/ton and the moisture content is found to be 3.5%, the adjusted weight will be calculated as follows:

- $3.5\% - 2.0\% = 1.5\%$  (*percentage in excess of 2.0%*)
- $75 \text{ tons} \times \$45.00 = \$3,375.00$  (*original delivery cost*)
- $\$3,375.00 \times 1.5\% = \$50.63$  (*1.5% of the original delivery cost*)

REQUEST FOR QUOTATION  
Roadway Salt – Sodium Chloride

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• \$3,375.00 - \$50.63 = \$3,324.37 (*total adjusted price*)

**3.2.4 Unacceptable Material:** Upon visual observation and, at the discretion of the WVDOH District Engineer or designee, if sodium chloride provided by Vendor is deemed unsatisfactory or in violation of ASTM D632, the Agency reserves the right to accept and exercise the price adjustment formula outlined in Section 3.2.4 or reject the delivery.

**3.2.4.1** Sodium chloride that contains large clumps or foreign material (i.e., dark colored contaminants, charcoal, cinders, or debris) will be rejected immediately.

**3.2.4.2** The decision of the WVDOH District Engineer or their designee regarding unacceptable materials shall be final per Standard Specs Section 105.1, as amended. Rejected material shall be removed immediately by the Vendor at no cost to the Agency and arrangements shall be made with the ordering Agency to replace the rejected order amount within five (5) days of its notice of unacceptable material. Vendor shall not charge a restocking fee if returned materials are in resalable condition.

**3.2.4.3** If the supplier disputes the WVDOH District Manager or designee's determination, they may file a complaint with the WVDOH Operations Division Director for a review and final decision within seven (7) business days of receiving notification of the unacceptable material.

**4. CONTRACT AWARD:** This Contract is intended to provide Agencies with a purchase price per ton for roadway salt. A Contract shall be awarded to all qualified Vendors providing the lowest bid per County (delivery) and whose materials meet the required specifications of this Contract. A WVDOH District/County map is provided as Exhibit 4 ("EXH 4")

**4.1 Pricing Pages:** Vendor shall complete ATT A by providing a bid price per ton for sodium chloride and factor into its bid price any equipment, materials, delivery, and labor to provide the Contract Item. Vendor shall NOT add, delete, or modify spreadsheet column and row headers, descriptions, units of measure, or estimated quantities on ATT A. Making any such changes to the format or failure to complete ATT A in its entirety may result in the disqualification of Vendor's bid.

**4.1.1** Vendor should type or electronically enter the information into the Pricing Page spreadsheets to prevent errors in the evaluation. In most cases, the Vendor can request an electronic copy of the Pricing Page spreadsheets for bid purposes by sending an email request to: [John.W.Estep@wv.gov](mailto:John.W.Estep@wv.gov).

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Roadway Salt – Sodium Chloride

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- 4.1.2 Vendor shall provide a price per ton for the delivery of roadway salt, F.O.B., to any or all District/County delivery sites identified on ATT A. Detailed Agency delivery site information by District is provided as Exhibit 3 (“EXH 3”).
  - 4.1.3 Vendor may provide a price per ton and storage location information for Agency pick-up of roadway salt on ATT A. Vendor pricing shall include the loading of Agency vehicles by Vendor in its pricing.
  - 4.1.4 Vendor entries of bid prices or other notations made in wvOASIS Commodity Line Descriptions will not be considered for bid evaluation or award. Submitting Pricing Pages other than those provided with this solicitation shall result in the disqualification of all Contract Items bid.
- 4.2 **Cooperative Contracting:** Purchase prices on all Contract Items in this contract, available for the WVDOH and the West Virginia Parkways Authority, shall be adoptable for other public agencies upon their request. Agencies under the authority of the West Virginia Purchasing Division must receive prior approval by the Purchasing Director.

**5. ORDERING, DELIVERIES, GUARANTEES, AND REPORTS:**

- 5.1 **Ordering:** Vendor shall accept orders through regular mail, facsimile, email, or any other written forms of communication. Vendor shall maintain and keep current its phone numbers, fax number, email address, locations, and ordering/billing/ payment addresses with WVDOH and in wvOASIS. Vendor may, but is not required to, accept online orders through a secure internet ordering portal/website. If Vendor can accept online orders, it shall include in its response a brief description of how Agencies may utilize the online ordering system. Vendor shall ensure that its online ordering system is properly secured prior to processing Agency orders online.
- 5.2 **Agency Delivery Orders (“ADO”):** District personnel must issue an ADO from wvOASIS for specific quantities of material to be delivered to Agency locations listed on ATT A or for pick-up from Vendor locations listed on ATT A as well as the agreed upon date(s) of delivery and/or pick-up of material. The ADO must be created in wvOASIS and approved to “Final”, prior to placing the order with the Vendor. The Agency is responsible for creating the ADO in wvOASIS and is required to submit the approved order, in writing, directly to the Vendor via mail, email or fax. **Verbal communication with the Vendor is not considered an official order.** In the event the Vendor denies an order or if there are changes to an ADO, the District must process a change order to the approved ADO issued from wvOASIS.

**REQUEST FOR QUOTATION**  
**Roadway Salt – Sodium Chloride**

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- 5.2.1 Emergency Requests:** Emergency requests received from an Agency shall be initiated within two (2) business days of receipt by Vendor. The determination of an emergency request will be in accordance with Section 2.6 of this Solicitation and will be prominently noted on the ADO. Once complete, the ADO shall be sent to Vendor via fax, email, or mail.
- 5.2.1.1** Emergency requests shall be treated as a priority and fulfilled by Vendor without delay. Emergency orders shall be paid at a rate of 105% of the Vendor's awarded price.
- 5.2.2 Extended Delivery Orders:** The WVDOH may submit an ADO to Vendor for multiple, successive deliveries of sodium chloride over a series of dates, as designated on the ADO. The Agency shall prominently note "Extended Delivery Order" on associated ADOs and monitor order fulfillment. Vendor shall communicate in writing any issues or potential disruption in the shipment of an extended delivery order.
- 5.2.2.1** The ordering Agency guarantees acceptance of the total extended order amount, per the delivery dates designated on the ADO.
- 5.2.2.2** Upon acceptance of an extended delivery order, Vendor guarantees fulfillment of the order to its completion, per the delivery dates designated on the ADO.
- 5.3 Deliveries:** Vendor shall deliver standard orders within 10 business days and emergency orders within two (2) business days after orders are received/accepted by Vendor, unless otherwise directed by the Agency. If the entire order cannot be delivered as indicated on the ADO, an initial delivery must be made by the date indicated on the ADO and arrangements for successive deliveries of the remaining amount must be made with the ordering Agency.
- 5.3.1** Vendor shall ship all orders in accordance with Sections 5 and 6 of these contract specifications and shall not hold orders until a minimum quantity is met.
- 5.3.2** Vendor shall provide a delivery/weight scale ticket with each shipment of material transported to an Agency delivery site. The delivery/weight scale ticket must be signed by the delivery driver and a copy must be provided for the ordering Agency at the time of delivery.
- 5.3.2.1** Vendor shall provide a pick-up/weight scale ticket for material orders obtained directly from a Vendor's storage site by an Agency. The pick-up ticket must be signed by Vendor storage site personnel and a copy must be provided to the ordering Agency at the time of pick-up.

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Roadway Salt – Sodium Chloride

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**5.4 Purchase Guarantee:** The WVDOH shall guarantee order fulfillment of 60% of the estimated quantity awarded statewide to Vendor. The purchase guarantee shall apply to the statewide total tonnage awarded to Vendor, not individual estimated totals per District, County, or Agency delivery site locations. For example, if a Vendor's statewide estimated quantity comes to 43,000 tons, the purchase guarantee amount shall be calculated as follows:

- $43,000 \text{ tons} \times 60\% = 25,800 \text{ tons}$ . The WVDOH guarantees a minimum purchase of 25,800 tons to be ordered throughout the term of the contract.

**5.5 Supply Guarantee:** Vendor shall guarantee the availability of 120% of its estimated statewide awarded quantity for WVDOH delivery and/or pick-up. The supply guarantee shall apply to the statewide total tonnage awarded to Vendor, not individual estimated totals per District, County, or Agency delivery site locations. For example, if a Vendor's statewide estimated quantity comes to 43,000 tons, the source guarantee amount shall be calculated as follows:

- $43,000 \text{ tons} \times 120\% = 51,600 \text{ tons}$ . Vendor shall guarantee the availability of 51,600 tons for WVDOH pick-up and/or delivery throughout the term of the contract.

**5.5.1 Orders Beyond 120%:** The Agency reserves the right to place orders that exceed a Vendor's 120% supply guarantee. Orders placed in excess of a Vendor's 120% supply guarantee shall be paid at a rate of 110% of the Vendor's awarded price. Placement of these orders and commencement of deliveries shall be in accordance with Sections 5 and 6 of these contract specifications.

**5.6 Vendor Reports:** Vendor shall provide reports to the WVDOH Operations Division upon request. Reports shall be submitted in a spreadsheet format and detail: order date, ADO purchase order (P.O.) number, tons ordered, and tons delivered/picked up for the requested period of time. Order data for delivery orders shall also detail the District/County delivery sites, as listed on ATT A. Order data for pick-up orders shall also identify the vendor storage site that material was obtained from. Failure to supply such reports may be grounds for cancellation of this Contract.



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Roadway Salt – Sodium Chloride

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**6. ORDER ACCEPTANCE, PAYMENT, AND FAILED DELIVERY:**

- 6.1 Order Acceptance and Written Verification of Receipt:** Upon receipt of a standard or extended delivery ADO, the Vendor shall advise the WVDOH in writing within five (5) calendar days of their acceptance or refusal of the ADO. As verification of receipt, Vendor must provide written acknowledgement of any ADOs and any revisions/modifications thereto sent by WVDOH. Failure to provide the WVDOH with written acknowledgement of any ADOs/revisions within five (5) days of a standard order being sent shall be considered refusal of the ADO. In the event of refusal, the WVDOH, at its own discretion, shall cancel the ADO and may seek to obtain the goods or services from the next low bid Vendor or proceed with an emergency purchase from the open market. The quantity of materials requested on the rejected ADO shall still be applied to the Agency's purchase guarantee amounts with that specific Vendor.
- 6.2 Payment:** Upon completion of an order, as indicated on the ADO, Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, as well as Electronic Funds Transfer as methods to process payment for goods and services. The Vendor shall accept the State of West Virginia's Purchasing Card and Electronic Funds Transfer for payment of orders under this Contract. Electronic Funds Transfer for payment is available through the WV State Auditor's Office. The Vendor may visit the WV State Auditor's website ([wvsao.gov](http://wvsao.gov)) for all necessary forms and instructions. Payment method may be dictated at WVDOH's discretion.
- 6.3 Failed Delivery and Risk of Loss:** The Agency placing an order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party. The Agency placing the Delivery Order under this Contract must be notified in writing by the Vendor within 36 hours of acceptance of the Agency's Delivery Order. Any failure to notify, acknowledge receipt of WVDOH's written Delivery Orders/revisions resulting in delivery delay, or failure to start or complete the project per the WVDOH scheduled due dates may be determined by the WVDOH at its sole discretion as harmful to the Agency and as such, shall result in WVDOH's cancellation of the Delivery Order and application of Liquidated Damages.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3.1 Liquidated Damages:** If the vendor's delivery of goods/services or corrections thereto exceeds the Delivery Order completion due date or timeframe, the Vendor shall agree that no extension of contract time will be

**REQUEST FOR QUOTATION  
Roadway Salt – Sodium Chloride**

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granted unless Liquidated Damages are applied by the WVDOH in the form of an off-set reduction to the total amount of the Vendor’s final invoice. The WVDOH shall calculate Liquidated Damages per project beginning on day one (1) after the WVDOH’s specified Delivery Order due date and in accordance with this Section, the Contract’s Terms and Conditions, Standard Specs Section 108.7, and the following Standard Specs Section Table 108.7.1 - Schedule of Liquidated Damages, as amended:

**Table 108.7.1  
Schedule of Liquidated Damages**

Original Contract Amount		Daily Charges Per Calendar Day
For More Than	To and Including	
\$0	\$500,000	\$300
\$500,000	\$2,000,000	\$600
\$2,000,000	\$10,000,000	\$1,500
\$10,000,000	\$25,000,000	\$3,000
\$25,000,000		\$4,000

**6.3.2 Force Majeure:** It shall be further noted that the Vendor is not responsible for and shall not be penalized for delays in its delivery of goods and/or services when caused by factors or events outside Vendor’s control, including but not limited to acts or omissions of the Agency or third parties, acts of civil or military authority, civil disturbance, war, terrorism, pandemics, explosions, fire, floods, tornadoes or other natural disasters, or acts of God.

**7. VENDOR DEFAULT:**

- 7.1** The following shall be considered a vendor default under this Contract.
  - 7.1.1** Failure to provide Contract Items in accordance with the requirements contained herein.
  - 7.1.2** Failure to comply with other specifications and requirements contained herein.
  - 7.1.3** Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.
  - 7.1.4** Failure to remedy deficient performance upon request.

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Roadway Salt – Sodium Chloride

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- 7.2 The following remedies shall be available to Agency upon default.
- 7.2.1 Immediate cancellation of the Contract.
  - 7.2.2 Immediate cancellation of one or more release orders issued under this Contract.
  - 7.2.3 Any other remedies available in law or equity.

**8. MISCELLANEOUS:**

- 8.1 **No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.
- 8.2 **Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.
- 8.3 **Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary Contract Manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract Manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract Manager and his or her contact information below.

**Contract Manager:** Deseree Caver  
**Telephone Number:** 800-600-7258  
**Fax Number:** 952-367-0655  
**Email Address:** salt\_customerocareroadsafety@cargill.com

Vendor shall inform the Agency in writing of any changes to the information provided above within ten (10) calendar days of such changes. Failure to comply may be grounds for cancellation of this contract.

# West Virginia Ethics Commission



## Disclosure of Interested Parties to Contracts

Pursuant to W. Va. Code § 6D-1-2, a state agency may not allow a vendor to perform work on a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

*"Business entity"* means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

*"Interested party" or "Interested parties"* means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

*"State agency"* means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the state agency prior to beginning work under a contract and to complete another form within 30 days of contract completion or termination.

*This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: [ethics@wv.gov](mailto:ethics@wv.gov); website: [ethics.wv.gov](http://ethics.wv.gov).*

West Virginia Ethics Commission  
**Disclosure of Interested Parties to Contracts**

(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: Cargill, Incorporated-Salt, Road Safety

Address: 24950 Country Club Blvd., Suite 450, North Olmsted, OH 44070

Name of Authorized Agent: Deseree Caver Address: 24950 country Club Blvd., Suite 450

Contract Number: CRFQ 0803 DOT2400000026 Contract Description: Roadway Salt-Sodium Chloride

Governmental agency awarding contract: State of West Virginia Department of Administration

Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

**1. Subcontractors or other entities performing work or service under the Contract**

Check here if none, otherwise list entity/individual names below.

**2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**

Check here if none, otherwise list entity/individual names below.

**3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**

Check here if none, otherwise list entity/individual names below.

Signature: Deseree Caver Date Signed: 12/13/2023

**Notary Verification**

State of Ohio, County of Cuyahoga:

I, Deseree Caver, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 13th day of December, 2023

Jean Davis  
Notary Public's Signature

JEAN R DAVIS  
NOTARY PUBLIC STATE OF OHIO  
MY COMMISSION EXPIRES 9/28/27

**To be completed by State Agency:**

Date Received by state agency: \_\_\_\_\_  
Date submitted to Ethics Commission: \_\_\_\_\_  
Governmental agency submitting Disclosure: \_\_\_\_\_

**POWER OF ATTORNEY**  
**Cargill, Incorporated – Salt, Road Safety**

Cargill, Incorporated, a Corporation duly organized and existing under the laws of the State of Delaware (the "Corporation"), and having its home office in the City of Wayzata, Minnesota, has made, constituted and appointed, and does by these presents, constitute and appoint:

Jim Anderson  
Rhiannah Antrum  
Jessica Bouman  
Shelly Brown  
Heather Campbell  
Deseree Caver  
Sara Cope  
Jean R. Davis  
Adam Donegan  
Katelyn Duché  
Hailey Elson  
Chris Gampfer  
Nadine Gilbert

Tatyana Huhn  
Brittney Ingold  
Kaitlyn L. Jackson  
Cindy Jasso  
Tom Juhasz  
Aaron Keeney  
Mary Kleiner  
Keith Klug  
Amanda Knaus  
Denise A. Koch  
Eric Koester  
Brittany Kwasny  
Sarah Liederbach

Alison Marincek  
Raven Mitchell  
Chris Morr  
Cara Morrison  
Nora Mouqqadim  
Justen Ollendick  
Angele Peterson  
Sean M. Riley  
Katelyn Rumpf  
Christine M. Rupert  
Anna Sarley  
Malinda Urian  
George Varga

each its true and lawful Attorneys-in-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, seal, acknowledge and deliver bids, bid bonds, contracts, performance bonds, and such other documents as may be necessary or required in connection with the bid, sale or delivery of mineral rock salt, solar salt, salt chemical mixtures, evaporated salt, and/or road deicing salt, to any state, county, city, municipality, or corporate body with which the Corporation may do business and to bind the Corporation thereby as fully and to the same extent as if such documents were signed by an officer of the Salt group, sealed with the Corporate Seal of the Corporation and duly attested by its Assistant Corporate Secretary, hereby ratifying and confirming all the said Attorney(s)-in-Fact may do in the premises.

IN WITNESS WHEREOF, Cargill, Incorporated has caused these presents to be signed by its Vice President, Cargill Salt, and its Assistant Corporate Secretary, and its Corporate Seal to be hereunto affixed this 28th day of March, 2023.

Cargill, Incorporated

DocuSigned by:  
*Christine Rupert*  
2CA11F3A20554B8...  
By: \_\_\_\_\_  
Christine Rupert, Vice President, Cargill Salt



DocuSigned by:  
*Matthew R. Wright*  
9C1B5207F4864E1...  
Attest: \_\_\_\_\_  
Matthew R. Wright, Assistant Corporate Secretary



STATE OF OHIO

) ss

COUNTY OF CUYAHOGA

On, December 13, 2023, before me, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared Deseree Caver known to me to Attorney-in-Fact of CARGILL, INCORPORATED, the Corporation described in and that executed the within and fore-going instrument, and known to me to be the person who executed the said instrument in behalf of the said corporation; and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in the certificate above.

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

JEAN R DAVIS  
NOTARY PUBLIC STATE OF OHIO  
MY COMMISSION EXPIRES 9/25/27





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
05/10/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Brown & Brown Inc.  80 South 8th Street Suite 700 Minneapolis, MN 55402	1-612-333-3323	<b>CONTACT NAME:</b> Dawn Heinemann or Melody Kronbach <b>PHONE (A/C No. Ext):</b> 612-333-3323 <b>FAX (A/C No.):</b> 612-373-7270 <b>E-MAIL ADDRESS:</b> dawn.heinemann@bbrown.com																					
<b>INSURED</b> Cargill Incorporated, Its Subsidiaries, and Businesses *(see attached for additional named insureds) PO Box 5612, MS12  Minneapolis, MN 55440-5612	<table border="1"> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC#</th> </tr> <tr> <td>INSURER A:</td> <td>OLD REPUBLIC INS CO</td> <td>24147</td> </tr> <tr> <td>INSURER B:</td> <td></td> <td></td> </tr> <tr> <td>INSURER C:</td> <td></td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </table>		INSURER(S) AFFORDING COVERAGE		NAIC#	INSURER A:	OLD REPUBLIC INS CO	24147	INSURER B:			INSURER C:			INSURER D:			INSURER E:			INSURER F:		
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INSURER E:																							
INSURER F:																							


**COVERAGES**                      **CERTIFICATE NUMBER: 68732591**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>COMMERCIAL GENERAL LIABILITY</b>  <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	X	MWZY31361923	06/01/23	06/01/24	EACH OCCURRENCE \$ 15,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 15,000,000 GENERAL AGGREGATE \$ 50,000,000 PRODUCTS - COMP/OP AGG \$ 50,000,000 OTHER: \$
A	<b>AUTOMOBILE LIABILITY</b>  <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> Cargo Legal	X	X	MWTB31362123	06/01/23	06/01/24	COMBINED SINGLE LIMIT (Ea accident) \$ 15,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ PIP \$ <b>Included</b>
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE  DED    RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	MWC31362023	06/01/23	06/01/24	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 15,000,000 E.L. DISEASE - EA EMPLOYEE \$ 15,000,000 E.L. DISEASE - POLICY LIMIT \$ 15,000,000
A	<b>EXCESS WORKER'S COMP.</b>			MWXS31361823 (OH, USLH)	06/01/23	06/01/24	<b>STATUTORY EXCESS</b> 1,000,000\$IR

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**\*\*SEE ATTACHED FOR ADDITIONAL INSURED/PRIMARY/NONCONTRIBUTORY/WAIVER OF SUBROGATION.**

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
Evidence of Insurance	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 

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DATE  
05/10/2023

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\*\*Entities identified in the contract with the Named Insured are included as Additional Insured-Vendors on the Insured's General Liability policy and Additional Insureds on the Insured's Automobile Liability policy, and coverage will be on a primary basis, where these are requirements in the written contract with the insured, subject to the policy terms and conditions. Waiver of Subrogation applies as respects Insured's General Liability, Automobile Liability and/or Workers' Compensation policy, where required by the written contract with the insured, subject to the policy terms and conditions.

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Cargill Meat Solutions Corporation  
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Cargill Salt  
Cargill Specialty Seeds & Oils  
Cargill Texturizing Solutions  
Cargill Turkey & Cooked Meats  
Cargill Turkey Production, LLC  
Cargill Value Added Protein  
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Provimi North America, Inc.  
Toshoku America, Inc.



Designation: D632 – 12 (Reapproved 2020)<sup>ε1</sup>

Roadway Salt - Sodium Chloride 6624C041  
EXH 1

## Standard Specification for Sodium Chloride<sup>1</sup>

This standard is issued under the fixed designation D632; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

<sup>ε1</sup> NOTE—10.1 was revised editorially in December 2020.

### 1. Scope

1.1 This specification covers sodium chloride intended for use as a deicer and for road construction or maintenance purposes.

1.2 The values stated as SI units are to be regarded as the standard.

1.3 For purposes of determining conformance to this specification, values for chemical analysis shall be rounded to the nearest 0.1 %, and values for grading shall be rounded to the nearest 1 %, in accordance with the rounding method in Practice E29.

1.4 The text of this specification references notes and footnotes that provide explanatory material. These notes and footnotes shall not be considered as requirements of the specification.

1.5 The following precautionary caveat pertains only to the test method in Annex A1 of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.31 on Calcium and Sodium Chlorides and Other Deicing Materials.

Current edition approved Nov. 1, 2020. Published November 2020. Originally approved in 1941. Last previous edition approved in 2012 as D632 – 12. DOI: 10.1520/D0632-12R20E01.

### 2. Referenced Documents

2.1 *ASTM Standards*.<sup>2</sup>

C136/C136M Test Method for Sieve Analysis of Fine and Coarse Aggregates

C670 Practice for Preparing Precision and Bias Statements for Test Methods for Construction Materials

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E287 Specification for Laboratory Glass Graduated Burets

E288 Specification for Laboratory Glass Volumetric Flasks

E534 Test Methods for Chemical Analysis of Sodium Chloride

### 3. Classification

3.1 This specification covers sodium chloride obtained from natural deposits (rock salt) or produced by man (evaporated, solar, other) and recognizes two types and two grades as follows:

3.1.1 *Type I*—Used primarily as a pavement deicer or in aggregate stabilization.

3.1.1.1 *Grade 1*—Standard grading (Note 1).

3.1.1.2 *Grade 2*—Special grading (Note 1).

3.1.2 *Type II*—Used in aggregate stabilization or for purposes other than deicing.

NOTE 1—Grade 1 provides a particle grading for general application, and has been found by latest research to be most effective for ice control and skid resistance under most conditions. Grade 2 is the grading typical of salt produced in the western United States and is available in states of the Rocky Mountains region and west, which may be preferred by purchasers in that area.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

#### 4. Chemical Requirements

4.1 The sodium chloride shall conform to the following requirement for chemical composition, except for the tolerance stated in 6.1 and 6.2:

Sodium chloride (NaCl), min, %	95.0
--------------------------------	------

#### 5. Physical Requirements

##### 5.1 Grading:

5.1.1 *Type I*—The grading of Type I sodium chloride, when tested by means of laboratory sieves conforming to Specification E11, shall conform to the following requirements for particle size distribution, except for the tolerance stated in 6.1 and 6.1.1:

Sieve Size	Mass % Passing	
	Grade 1	Grade 2
19.0 mm (¾ in.)	...	100
12.5 mm (½ in.)	100	...
9.5 mm (⅜ in.)	95 to 100	...
4.75 mm (No. 4)	20 to 90	20 to 100
2.36 mm (No. 8)	10 to 60	10 to 60
600 µm (No. 30)	0 to 15	0 to 15

5.1.2 *Type II*—The grading of Type II sodium chloride shall conform to the grading requirements imposed or permitted by the purchaser under conditions of the intended use.

#### 6. Permissible Variations

6.1 In the case of sodium chloride sampled after delivery to the purchaser, tolerances from the foregoing specified values shall be allowed as follows:

6.1.1 *Grading*—Five percentage points on the maximum value for the range for each sieve size, except the 12.5 mm (½ in.) and 9.5 mm (⅜ in.) for Grade 1 and 19.0 mm (¾ in.) for Grade 2.

6.1.2 *Chemical Composition*—0.5 percentage point.

#### 7. Condition

7.1 The sodium chloride shall arrive at the purchaser's delivery point in a free-flowing and usable condition.

#### 8. Sampling

8.1 Not less than three sample increments shall be selected at random from the lot (Note 2). Each increment shall be obtained by scraping aside the top layer of material to a depth of at least 25 mm (1 in.) and taking a 500-g (approximately 1-lb) quantity of sodium chloride to a depth of at least 150 mm

(6 in.). Sampling shall be done by means of a sampling thief or other method that will ensure a representative cross section of the material. The sample increments shall be thoroughly mixed to constitute a composite sample representative of the lot.

NOTE 2—A lot may be an amount agreed upon between purchaser and supplier at the time of purchase.

#### 9. Test Methods

9.1 *Chemical Analysis*—Test for compliance with the requirements for chemical composition in accordance with the following methods:

9.1.1 *Routine Control*—Use of the “Rapid Method” in Annex A1 is permitted for routine control and approval.

9.1.2 *Referee Testing*—In case of controversy, determine the chemical composition of the sample using the current version of Test Method E534.

9.2 Grading shall be determined by Test Method C136/C136M.

#### 10. Inspection

10.1 The purchaser or purchaser's representative shall be provided free entry and necessary facilities at the production plant or storage area if the purchaser elects to sample sodium chloride at the source.

#### 11. Rejection and Rehearing

11.1 The sodium chloride shall be subject to rejection if it fails to conform to any of the requirements of this specification.

11.2 In the case of failure to meet the requirements on the basis of an initial sample of a lot represented, two additional samples shall be taken from the lot and tested. If both additional samples meet the requirements, the lot shall be accepted.

#### 12. Packaging and Marking

12.1 The sodium chloride shall be delivered in bags or other containers acceptable to the purchaser, or in bulk lots. The name of the producer and the net weight shall be legibly marked on each bag or container, or in the case of bulk lots, on the shipping or delivery report.

#### 13. Keywords

13.1 salt; snow and ice removal; sodium chloride; stabilization; winter maintenance

**ANNEX**
**(Mandatory Information)**
**A1. RAPID METHOD OF ANALYSIS FOR SODIUM CHLORIDE**
**A1.1 Scope**

A1.1.1 This annex covers a rapid method for chemical analysis of sodium chloride.

A1.1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

**A1.2 Significance and Use**

A1.2.1 The procedure for chemical analysis in this annex determines the total amount of chlorides present in the sample and expresses that value as sodium chloride.

A1.2.2 This rapid method of analysis does not distinguish between sodium chloride and other evaporite chloride compounds with ice-melting capabilities. Typical rock salt and solar salt sometimes contains small amounts of  $\text{CaCl}_2$ ,  $\text{MgCl}_2$ , and  $\text{KCl}$ , depending on the source of the material. When this rapid method is used on continuing shipments from a known source, it will provide a fast, essentially accurate determination of the sodium chloride content of the material furnished. Thus, the need for testing by the referee method, Test Method E534, is reduced.

**A1.3 Apparatus**

A1.3.1 *Glassware*—Standard weighing bottles, volumetric flasks (conforming to Specification E288, Class C or better), and burets (conforming to Specification E287, Class B or better).

A1.3.2 *Balance*, having a capacity of at least 20 g, accurate and readable to 0.01 g.

**A1.4 Reagents**

A1.4.1 *Nitric Acid ( $\text{HNO}_3$ )*, dilute ( $\text{HNO}_3:\text{H}_2\text{O}$ , 1:4 by volume).

A1.4.2 *Calcium Carbonate ( $\text{CaCO}_3$ )*—Reagent grade, low chloride, powder.

A1.4.3 *Silver Nitrate Solution*—0.05 N  $\text{AgNO}_3$ .

A1.4.4 *Sodium Chloride ( $\text{NaCl}$ )*—Reagent grade.

A1.4.5 *Potassium Chromate ( $\text{K}_2\text{CrO}_4$ ) Solution*—(50 g  $\text{K}_2\text{CrO}_4/\text{L}$ ).

**A1.5 Procedure**

A1.5.1 Thoroughly mix the composite sample obtained under 8.1, and reduce by quartering or by means of a sample

splitter to approximately 500 g. Pulverize the reduced sample to pass a 300- $\mu\text{m}$  (No. 50) sieve.

A1.5.2 *Standardization*—Standardize the silver nitrate ( $\text{AgNO}_3$ ) solution daily, using 10 g of reagent grade sodium chloride ( $\text{NaCl}$ ) following the applicable procedure in A1.5.3.

A1.5.3 From the pulverized sodium chloride, obtain a test sample with a mass of  $10.00 \pm 0.01$  g and place in a beaker with 250 mL distilled water. Add 10 mL of the diluted nitric acid solution ( $\text{HNO}_3$ , 1 + 4 by volume) and stir for 20 min at room temperature to put the salt in solution. Transfer the solution, including any insoluble material, to a 2-L volumetric flask, dilute to the mark with distilled water, and mix. With a pipet, draw off 25 mL of the solution and place in a white porcelain casserole. Add 0.5 g of calcium carbonate ( $\text{CaCO}_3$ ) to neutralize the excess  $\text{HNO}_3$ , and adjust the pH to approximately 7. Add 3 mL of the potassium chromate ( $\text{K}_2\text{CrO}_4$ ) solution as an indicator and titrate dropwise with the silver nitrate ( $\text{AgNO}_3$ ) solution until a faint but distinct change in color occurs—a persistent yellowish brown endpoint (see Note A1.1), comparable to standardization. Estimate the titer from the buret to the second decimal place.

NOTE A1.1—The color of the initial solution is lemon-yellow. With addition of the calcium carbonate ( $\text{CaCO}_3$ ) and stirring, the initial solution becomes opaque, with a creamy lemon-yellow color. Addition of the silver nitrate ( $\text{AgNO}_3$ ) solution produces silver chloride, which begins to agglomerate as the titration progresses, and the lemon-yellow color will begin to have whitish, opaque swirls of silver chloride. As the titration proceeds, the red color formed by addition of each drop begins to disappear more slowly. Continue the addition dropwise until a faint but distinct change in color occurs and the yellow-brown to faint reddish-brown color persists. The first stable presence of red silver chromate is the endpoint. If the endpoint is overstepped, a deep reddish-brown color occurs.

A1.6 *Calculate*—Calculate the total chlorides expressed as percent  $\text{NaCl}$  as follows:

$$P = [(A/B) \times (C/D)] \times 100 \quad (\text{A1.1})$$

where:

A = reagent grade  $\text{NaCl}$  used, g,

B = 0.05 N  $\text{AgNO}_3$  solution required to titrate the reagent grade  $\text{NaCl}$ , mL,

C = 0.05 N  $\text{AgNO}_3$  solution required to titrate the sample being tested, mL,

D = test sampling mass, g, and

P = total chlorides, expressed as sodium chloride, in the sample being tested, %.

A1.6.1 If moisture is apparent in the sample, dry a duplicate 10-g sample of the pulverized salt at 105 °C and correct the mass of the sample accordingly.

## A1.7 Precision and Bias

A1.7.1 *Precision*<sup>3</sup>—An interlaboratory study was conducted and an analysis was made that included three materials ranging from approximately 92 % to 99 % NaCl. Ten laboratories were included in the study.

A1.7.2 *Single-Operator Precision (NaCl composition 95.0 % and greater)*—The single-operator standard deviation of a single test result for average NaCl composition 95.0 % and greater has been found to be 0.248.<sup>4</sup> Therefore, results of two properly conducted tests by the same operator on the same material with the same equipment and under the same conditions should not differ by more than 0.70 %.<sup>4</sup>

A1.7.3 *Multilaboratory Precision (NaCl composition 95.0 % and greater)*—The multilaboratory standard deviation of a single test result for average NaCl composition greater

than 95.0 % has been found to be 0.633 %.<sup>4</sup> Therefore, results of two properly conducted tests in different laboratories on the same material should not differ by more than 1.79 %.<sup>4</sup>

A1.7.4 *Single-Operator Precision (NaCl composition less than 95.0 % and greater than 90.0 %)*—The single-operator coefficient of variation of a single test result for average NaCl composition less than 95.0 % and greater than 90.0 % has been found to be 0.427 %.<sup>4</sup> Therefore, results of two properly conducted tests by the same operator on the same material with the same equipment and under the same conditions should not differ by more than 1.21 %.<sup>4</sup>

A1.7.5 *Multilaboratory Precision (NaCl composition less than 95.0 % and greater than 90.0 %)*—The multilaboratory standard deviation of a single test result for average NaCl composition less than 95.0 % and greater than 90.0 % has been found to be 0.711 %.<sup>4</sup> Therefore, results of two properly conducted tests in different laboratories on the same material should not differ by more than 2.00 %.<sup>4</sup>

A1.7.6 *Bias*—No justifiable statement can be made on the bias of this test method because the data are not available.

<sup>3</sup> Supporting data have been filed at ASTM International Headquarters and may be obtained by requesting Research Report RR:D04-1016. Contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org).

<sup>4</sup> These numbers represent, respectively, the (1s %) and (d2s %) limits, as described in Practice C670.

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## Standard Test Methods for Chemical Analysis of Sodium Chloride<sup>1</sup>

This standard is issued under the fixed designation E534; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope\*

1.1 These test methods cover the chemical analyses usually required for sodium chloride.

1.2 The analytical procedures appear in the following sections:

	Section
Sample Preparation	5 to 9
Moisture	10 to 17
Water Insolubles	18 to 26
Calcium and Magnesium	27 to 34
Sulfate	35 to 42
Reporting of Analyses	43 to 45

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 Review the current safety data sheets (SDS) for detailed information concerning toxicity, first-aid procedures, handling, and safety precautions.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

**D1193** Specification for Reagent Water

**D6809** Guide for Quality Control and Quality Assurance

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee D16 on Aromatic, Industrial, Specialty and Related Chemicals and are under the direct responsibility of Subcommittee D16.13 on Chlorine.

Current edition approved Feb. 1, 2018. Published April 2018. Originally approved in 1975. Last previous edition approved in 2013 as E534 – 13. DOI: 10.1520/E0534-18.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

Procedures for Aromatic Hydrocarbons and Related Materials

**E180** Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial and Specialty Chemicals (Withdrawn 2009)<sup>3</sup>

**E200** Practice for Preparation, Standardization, and Storage of Standard and Reagent Solutions for Chemical Analysis

### 3. Significance and Use

3.1 Sodium chloride occurs in nature. It is a necessary article of diet as well as the source for production of many sodium compounds and chlorine. The methods listed in 1.2 provide procedures for analyzing sodium chloride to determine if it is suitable for its intended use.

### 4. Reagents

4.1 *Purity of Reagents*—Unless otherwise indicated, it is intended that all reagents should conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available.<sup>4</sup>

4.2 *Purity of Water*—Unless otherwise indicated, references to water shall be understood to mean Type II or III reagent water conforming to Specification D1193.

## SAMPLE PREPARATION

### 5. Scope

5.1 This test method covers preparation of a sample that will be as representative as possible of the entire bulk quantity. The results of any analysis pertain only to the sample used.

### 6. Apparatus

6.1 *Coarse Grinder.*

6.2 *High-Speed Blender.*

6.3 *Oven.*

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

<sup>4</sup> *Reagent Chemicals, American Chemical Society Specifications*, American Chemical Society, Washington, DC. For suggestions on the testing of reagents not listed by the American Chemical Society, see *Analar Standards for Laboratory Chemicals*, BDH Ltd., Poole, Dorset, U.K., and the *United States Pharmacopeia and National Formulary*, U.S. Pharmacopeial Convention, Inc. (USPC), Rockville, MD.

\*A Summary of Changes section appears at the end of this standard

**TABLE 1 Precision for Moisture Method**

Level, %	Repeatability			Laboratory Precision			Reproducibility		
	Standard Deviation, %	Degrees of Freedom	95 % Limit, %	Standard Deviation, %	Degrees of Freedom	95 % Limit, %	Standard Deviation, %	Degrees of Freedom	95 % Limit, %
0.003 to 0.004	0.0014	36	0.004	0.00223	18	0.006	0.00322	8	0.009
0.025 to 0.035	0.0071	60	0.02	0.00428	30	0.01	0.0138	9	0.04

6.4 *Riffle Sampler.*

6.5 *Scale.*

## 7. Reagents

7.1 *Hydrochloric Acid, Standard (1 meq/mL HCl)*—Prepare and standardize in accordance with Practice E200.

## 8. Rock and Solar Salt Stock Solutions

8.1 Mix and split sample to 500 g, using the riffle sampler.

8.2 If sample appears wet, dry at 110°C for 2 h.

8.3 Grind the sample to –8 mesh in the coarse grinder.

8.4 Mix ground sample well and weigh out a 25.0-g representative portion for rock salt or 50.0 g for solar salt.

8.5 Place 200 mL of water in the high-speed blender and start at low speed.

8.6 Slowly add the salt sample to the high-speed blender and blend for 5 min.

8.7 Test for water insolubles as described in Sections 18 – 26.

8.8 Save filtrate from water insolubles test and dilute in a volumetric flask to 1 L with water as a stock solution for subsequent analyses.

## 9. Evaporated and Purified Salt Stock Solutions

9.1 Mix and split the sample to 100 g for evaporated salt, or 200 g for purified evaporated salt.

9.2 Transfer to a 1-L volumetric flask.

9.3 Add 800 mL of water and allow the salt to dissolve.

9.4 Add 2 mL of concentrated HCl to dissolve any water insoluble calcium salts, particularly calcium carbonate.

9.5 Dilute to volume with water and use as a stock solution for subsequent analyses.

## MOISTURE

### 10. Scope

10.1 This test method determines free moisture in the salt over a concentration range from 0.00 to 0.04 %. It does not determine occluded moisture trapped within the salt crystals. The procedure is based on weight loss after a sample is heated to volatilize moisture.

### 11. Apparatus

11.1 *Analytical Balance* capable of weighing to ±0.001 g.

11.2 *Desiccator.*

11.3 *Oven.*

### 12. Procedure, Rock and Solar Salt

12.1 Weigh 100 g of salt to the nearest 0.05 g into a previously dried and tared moisture dish.

12.2 Dry at 110°C for 2 h.

12.3 Cool in a desiccator and weigh.

### 13. Procedure, Evaporated and Purified Evaporated Salt

13.1 Weigh 20 g of salt to the nearest 0.001 g into a previously dried and weighed glass weighing bottle and cover.

13.2 Dry at 110°C for 2 h.

13.3 Cool in a desiccator, replace cover, and weigh.

### 14. Calculation

14.1 Calculate the percentage of moisture as follows:

$$\text{moisture, mass (m/m) \%} = \frac{A}{B} \times 100 \quad (1)$$

where:

*A* = loss of mass on drying, g, and

*B* = mass of sample, g.

### 15. Report

15.1 Report the moisture content to the nearest 0.001 %.

### 16. Precision and Bias<sup>5</sup>

16.1 Ten laboratories analyzed five samples in duplicate on two different days. Practice E180 was followed for the design and analysis of the data; the details are given in ASTM Research Report RR:E15-1052.

16.1.1 *Intermediate Precision, formerly called Repeatability (Single Analyst)*—The standard deviation for a single determination has been estimated to be the percent absolute values shown in Table 1 at the indicated degrees of freedom. The 95 % limit for the difference between two such runs is the percent absolute values in Table 1.

16.1.2 *Laboratory Precision (Within-Laboratory, Between-Days Variability)*—The standard deviation of results (each the average of duplicates), obtained by the same analyst on different days, has been estimated to be the percent absolute values shown in Table 1 at the indicated degrees of freedom. The 95 % limit for the difference between two such averages is the percent absolute values in Table 1.

<sup>5</sup> Supporting data have been filed at ASTM International Headquarters and may be obtained by requesting Research Report RR:E15-1052. Contact ASTM Customer Service at service@astm.org.

16.1.3 *Reproducibility (Multilaboratory)*—The standard deviation of results (each the average of duplicates), obtained by analysts in different laboratories, has been estimated to be percent absolute values shown in **Table 1**. The 95 % limit for the difference between two such averages is the percent absolute values in **Table 1**.

16.2 *Bias*—The bias of this test method has not been determined due to the unavailability of suitable reference materials.

## 17. Quality Guidelines

17.1 Laboratories shall have a quality control system in place.

17.1.1 Confirm the performance of the test instrument or test method by analyzing a quality control sample following the guidelines of standard statistical quality control practices.

17.1.2 A quality control sample is a stable material isolated from the production process and representative of the sample being analyzed.

17.1.3 When QA/QC protocols are already established in the testing facility, these protocols are acceptable when they confirm the validity of test results.

17.1.4 When there are no QA/QC protocols established in the testing facility, use the guidelines described in Guide **D6809** or similar statistical quality control practices.

## WATER INSOLUBLES

### 18. Scope

18.1 This gravimetric method determines only the amount of insolubles present in sodium chloride which will not dissolve in water.

### 19. Apparatus

19.1 *Analytical Balance.*

19.2 *Desiccator.*

19.3 *Magnetic Stirrer with Stirring Bar.*

19.4 *Parabella Filter Funnel Assembly, 1000-mL, or its equivalent with 0.3- $\mu$ m glass fiber filter disk.*

### 20. Reagents

20.1 *Silver Nitrate, Standard Solution, 0.1 meq/mL AgNO<sub>3</sub>*—Prepare and standardize in accordance with Practice **E200**.

### 21. Procedure, Rock and Solar Salts

21.1 Transfer a sample prepared in accordance with **8.1** to **8.6** to a 1-L Erlenmeyer flask, washing out the blender with 100 mL of water. Add 300 mL of water to give a total of 600 mL of water added.

21.2 Stir on a magnetic stirrer for 1 h. Adjust the stirrer speed to give maximum agitation without danger of losing any sample due to splashing. Place a beaker or watch glass over top of the flask while stirring.

21.3 Filter the solution by vacuum through a previously dried (110°C for 1 h) and accurately weighed filter disk using

the Parabella funnel. Transfer all insolubles to the paper and wash free of chlorides with water until the filtrate shows no turbidity when tested with 0.1 meq/mL AgNO<sub>3</sub> solution.

21.4 Dilute filtrate and washings to 1 L with water in volumetric flask.

21.5 Dry the filter disk at 110°C for 1 h.

21.6 Cool in a desiccator and weigh the disk on an analytical balance.

21.7 Save the filtrate for subsequent analyses.

### 22. Procedure, Evaporated and Purified Evaporated Salts

22.1 Place a well mixed sample in a 2-L beaker. Use 100-g sample for evaporated or 200 g for purified evaporated salt.

22.2 Add 750 mL of water.

22.3 Mix with a mechanical stirrer until solution is complete.

22.4 Filter the solution by vacuum through a previously dried (110°C for 1 h) and accurately weighed filter disk using the Parabella funnel. Transfer all insolubles to the paper and wash free of chlorides with water until the filtrate shows no turbidity when tested with 0.1 meq/mL AgNO<sub>3</sub> solution.

22.5 Dry the filter disk at 110°C for 1 h.

22.6 Cool in a desiccator and weigh on an analytical balance.

22.7 Dilute the filtration and washings to 1 L with water in a volumetric flask and reserve for subsequent analyses.

### 23. Calculation

23.1 Calculate the percentage of water insolubles as follows:

$$\text{insolubles, \% mass (m/m)} = \frac{A}{B} \times 100 \quad (2)$$

where:

A = increase in mass of filter disk, g, and

B = sample mass, g.

### 24. Report

24.1 Report the percentage of water insolubles to the nearest percentage shown as follows:

Range, %	Report to, %
0.002 to 0.005	0.001
0.01 to 0.04	0.01
0.15 to 0.35	0.01

### 25. Precision and Bias<sup>5</sup>

25.1 Ten laboratories analyzed six samples in duplicate on two different days. Practice **E180** was followed for the design and analysis of the data; the details are given in ASTM Research Report RR:E15-1052.

25.1.1 *Intermediate Precision, formerly called Repeatability (Single Analyst)*—The coefficient of variation for a single determination has been estimated to be the percent relative values shown in **Table 2** at the indicated degrees of freedom. The 95 % limit for the difference between two such runs is percent relative values shown in **Table 2**.



**TABLE 2 Precision for Water Insolubles Method**

Level, %	Coefficient of Variation, % relative	Repeatability		Reproducibility		
		Degrees of Freedom	95 % Limit, % relative	Coefficient of Variation, % Relative	Degrees of Freedom	95 % Limit, % relative
0.002 to 0.005	22.0	20	62	91.7	9	257
0.01 to 0.04	21.9	18	61	42.2	8	118
0.15 to 0.35	22.0	20	62	20.5	9	57

25.1.2 *Laboratory Precision (Within-Laboratory, Between-Days Variability)*—The coefficient of variation of results (each the average of duplicates), obtained by the same analyst on different days, has been estimated to be 23.5 % relative at 57 df. The 95 % limit for the difference between two such averages is 66 % relative.

25.1.3 *Reproducibility (Multilaboratory)*—The coefficient of variation of results (each the average of duplicates), obtained by analysts in different laboratories, has been estimated to be percent relative values shown in **Table 2** at the indicated degrees of freedom. The 95 % limit for the difference between two such averages is percent relative values shown in **Table 2**.

25.2 *Bias*—The bias of this test method has not been determined due to the unavailability of suitable reference materials.

## 26. Quality Guidelines

26.1 Laboratories shall have a quality control system in place.

26.1.1 Confirm the performance of the test instrument or test method by analyzing a quality control sample following the guidelines of standard statistical quality control practices.

26.1.2 A quality control sample is a stable material isolated from the production process and representative of the sample being analyzed.

26.1.3 When QA/QC protocols are already established in the testing facility, these protocols are acceptable when they confirm the validity of test results.

26.1.4 When there are no QA/QC protocols established in the testing facility, use the guidelines described in Guide **D6809** or similar statistical quality control practices.

## CALCIUM AND MAGNESIUM

### 27. Scope

27.1 This test method covers the EDTA titrimetric determination of calcium and magnesium and the EDTA titrimetric determination of calcium. The magnesium content is determined by difference.

### 28. Apparatus

28.1 *Magnetic Stirrer with Stirring Bar.*

### 29. Reagents

29.1 *Eriochrome Black T Indicator Solution, Hydroxy Naphthol Blue,* or its equivalent.

29.2 *Murexide (Ammonium Purpurate) Indicator Solution,* or its equivalent.

29.3 *EDTA Standard Solution* (1 mL = 0.400 mg calcium)—Dissolve 4.0 g of disodium dihydrogen ethylene diaminetetraacetate (EDTA) in 1 L of water. Standardize this solution against a standard calcium solution prepared by dissolving 1.000 g of CaCO<sub>3</sub> and 2 mL of HCl in water and diluting to 1 L with water in a volumetric flask. Obtain an exact factor for the EDTA solution. This factor is equal to the milligrams of calcium equivalent to 1.00 mL of EDTA solution. See Practice **E200**.

$$\text{factor} = \frac{W}{V} \quad (3)$$

where:

W = calcium in aliquot, mg, and

V = EDTA solution required for titration, mL.

29.4 *Ammonium Chloride–Ammonium Hydroxide Solution*—Add 67.5 g of ammonium chloride (NH<sub>4</sub>Cl) to 570 mL of ammonium hydroxide (NH<sub>4</sub>OH) contained in a 1-L volumetric flask. Reserve this solution for use as described in **29.6** and **29.7**.

29.5 *Potassium Cyanide Solution* (50 g/L)—Dissolve 50 g of potassium cyanide (KCN) in water and dilute to 1 L with water. Store in a borosilicate glass bottle. (**Warning**—Potassium cyanide is extremely poisonous.)

29.6 *Magnesium Sulfate Solution* (2.5 g/L)—Dissolve 2.5 g of MgSO<sub>4</sub>·7H<sub>2</sub>O in water and dilute to volume with water in a 1-L volumetric flask. Determine the volume of EDTA solution equivalent to 50 mL of MgSO<sub>4</sub> solution as follows: Pipet 50 mL of MgSO<sub>4</sub> solution into a 400-mL beaker. Add 200 mL of water and 2 mL of NH<sub>4</sub>Cl:NH<sub>4</sub>OH solution (27.4). Add 1 mL of KCN solution and a sufficient amount of Eriochrome Black T Indicator solution or its equivalent. Titrate the solution with EDTA solution while stirring with a magnetic stirrer to the true blue end point. This gives the volume of EDTA solution equivalent to 50.0 mL of MgSO<sub>4</sub> solution.

29.7 *Buffer Solution*—Pipet 50 mL of MgSO<sub>4</sub> solution into the volumetric flask containing the remaining NH<sub>4</sub>Cl:NH<sub>4</sub>OH solution (27.4). Add the exact volume of EDTA solution equivalent to 50 mL of the MgSO<sub>4</sub> solution. Dilute to 1 L with water. Store the solution in a polyethylene bottle.

29.8 *Potassium Hydroxide Solution* (600 g/L)—Dissolve 150 g of potassium hydroxide (KOH) in 250 mL of water. Cool and store in a polyethylene bottle.

### 30. Procedure

30.1 Using **Table 3** as a guide, pipet two aliquots of stock solution into 400-mL beakers to give a titer between 2 and 10

**TABLE 3 Stock Solutions (Calcium and Magnesium)**

Stock Solution	Aliquot, mL
Kansas rock salt	10
Northern rock salt	25
Southern rock salt	50
Evaporated salt	50
Purified salt	200
Solar salt	100

mL of standard EDTA solution. One aliquot is used to determine total calcium and magnesium and the other for calcium.

30.2 Dilute to 200 mL with water, if necessary, and place on magnetic stirrer.

30.3 *Total Calcium and Magnesium:*

30.3.1 Add 5 mL of buffer solution, 1 mL of KCN solution, and a sufficient amount of Eriochrome Black T Indicator Solution or its equivalent.

30.3.2 Titrate with standard EDTA solution to a true blue color.

30.3.3 Record the millilitres used as Titration 1 ( $T_1$ ).

30.4 *Calcium Only:*

30.4.1 Add 2 mL of KOH solution, 1 mL of KCN solution to the other aliquot in 30.1 and 30.2, and stir for about 2 min to precipitate magnesium.

30.4.2 Add a sufficient amount of murexide solution or an equivalent calcium indicator solution.

30.4.3 Titrate with standard EDTA solution to a true blue color.

30.4.4 Record the millilitres used as Titration 2 ( $T_2$ ).

### 31. Calculation

31.1 Calculate the mass percent of calcium as follows:

$$\text{Ca, \% mass (m/m)} = \frac{(T_2) (\text{factor}) (0.1)}{S} \quad (4)$$

where:

$T_2$  = EDTA used to titrate calcium only, mL.

$S$  = mass of salt in aliquot, g.

31.1.1 See 29.3 for factor.

31.2 Calculate the mass percent of magnesium as follows:

$$\text{Mg, \% mass (m/m)} = \frac{(T_1 - T_2) (\text{factor}) (0.6064) (0.1)}{S} \quad (5)$$

where:

$T_1$  = EDTA used to titrate total calcium and magnesium,

$S$  = mass of salt in aliquot, g.

### 32. Report

32.1 Report the percentage of calcium to the nearest 0.001 %. Report the percentage of magnesium to the nearest 0.001 %.

### 33. Precision and Bias<sup>5</sup>

33.1 Eight laboratories analyzed five samples in duplicate on two different days. Practice E180 was followed for the design and analysis of the data; the details are given in ASTM Research Report RR:E15-1052.

33.1.1 *Intermediate Precision, formerly called Repeatability (Single Analyst)*—The coefficient of variation for a single determination has been estimated to be 3.56 % relative at 100 df. The 95 % limit for the difference between two such runs is 10 % relative.

33.1.2 *Laboratory Precision (Within-Laboratory, Between-Days Variability)*—The coefficient of variation of results (each the average of duplicates), obtained by the same analyst on different days, has been estimated to be 6.34 % relative at 40 df. The 95 % limit for the difference between two such averages is 18 % relative.

33.1.3 *Reproducibility (Multilaboratory)*—The coefficient of variation of results (each the average of duplicates), obtained by analysts in different laboratories, has been estimated to be 9.82 % relative at 7 df. The 95 % limit for the difference between two such averages is 28 % relative.

33.1.4 *Bias*—The bias of this test method has not been determined due to the unavailability of suitable reference materials.

33.2 The following criteria should be used in judging the acceptability of magnesium results:

33.2.1 *Repeatability (Single Analyst)*—The standard deviation for a single determination has been estimated to be percent absolute values shown in Table 4 at the indicated degrees of freedom. The 95 % limit for the difference between two such runs is the percent absolute values shown in Table 4.

33.2.2 *Laboratory Precision (Within-Laboratory, Between-Days Variability)*—The standard deviation of results (each the average of duplicates), obtained by the same analyst on different days, has been estimated to be the percent absolute values shown in Table 4 at the indicated degrees of freedom. The 95 % limit for the difference between two such averages is the percent absolute values shown in Table 4.

33.2.3 *Reproducibility (Multilaboratory)*—The standard deviation of results (each the average of duplicates), obtained by analysts in different laboratories, has been estimated to be the percent absolute values shown in Table 4 at the indicated

**TABLE 4 Precision for Magnesium Method**

Range, %	Repeatability			Laboratory Precision			Reproducibility		
	Standard Deviation, %	Degrees of Freedom	95 % Limit, %	Standard Deviation, %	Degrees of Freedom	95 % Limit, %	Standard Deviation, %	Degrees of Freedom	95 % Limit, %
0.001 to 0.003	0.00071	56	0.002	0.00066	28	0.002	0.00147	8	0.004
0.02 to 0.025	0.0035	52	0.010	0.033	26	0.092	0.0042	8	0.012

**TABLE 5 Stock Solutions (Sulfate)**

Stock Solution	Aliquot, mL
Rock salt	40
Evaporated salt	100
Purified evaporated salt	200
Solar salt	100

degrees of freedom. The 95 % limit for the difference between two such averages is the percent absolute values shown in **Table 4**.

33.2.4 *Bias*—The bias of this test method has not been determined due to the unavailability of suitable reference materials.

### 34. Quality Guidelines

34.1 Laboratories shall have a quality control system in place.

34.1.1 Confirm the performance of the test instrument or test method by analyzing a quality control sample following the guidelines of standard statistical quality control practices.

34.1.2 A quality control sample is a stable material isolated from the production process and representative of the sample being analyzed.

34.1.3 When QA/QC protocols are already established in the testing facility, these protocols are acceptable when they confirm the validity of test results.

34.1.4 When there are no QA/QC protocols established in the testing facility, use the guidelines described in **Guide D6809** or similar statistical quality control practices.

## SULFATE

### 35. Scope

35.1 This test method covers the gravimetric determination of the sulfate content of sodium chloride.

### 36. Apparatus

36.1 *Gooch Asbestos Slurry.*

36.2 *Gooch Filtering Crucible and Holder.*

36.3 *Muffle Furnace.*

36.4 *Oven.*

### 37. Reagents

37.1 *Barium Chloride Solution* (120 g BaCl<sub>2</sub> · 2H<sub>2</sub>O/L)—Dissolve 120 g of barium chloride dihydrate in about 750 mL of water, filter, and dilute to 1 L.<sup>6</sup>

37.2 *Hydrochloric Acid Standard Solution* (1 meq/mL HCl)—Prepare and standardize in accordance with **Practice E200**.

37.3 *Methyl Orange Indicator Solution* (1 g/L)—Dissolve 0.1 g of methyl orange in 100 mL of water and filter if necessary.<sup>6</sup>

<sup>6</sup> This reagent is also described in **Practice E200**.

### 38. Procedure

38.1 Using **Table 5** as a guide, pipet the recommended aliquot of stock solution into a 400-mL beaker.

38.2 Dilute to 200 mL, add a few drops of methyl orange indicator solution and acidify with 1 mL of HCl (1 + 1) if necessary.

38.3 Heat solution gently to boiling and add 10 mL of BaCl<sub>2</sub> solution dropwise while stirring.

38.4 Digest on a hot plate below the boiling point for 30 min.

38.5 Cool overnight.

38.6 Filter through a tared Gooch crucible previously prepared with an asbestos mat and ignited in a muffle furnace at 800°C for 30 min. Transfer all the precipitate to the crucible with a rubber policeman. Wash with portions of hot water until washings are free of chlorides.

38.7 Dry the crucible at 110°C for 15 min, then ignite in a muffle furnace at 800°C for 30 min.

38.8 Cool in a desiccator and reweigh.

### 39. Calculation

39.1 Calculate percentage of sulfate as follows:

$$\text{sulfate, \% mass (m/m)} = \frac{A}{B} \times 0.4115 \times 100 \quad (6)$$

where:

A = mass of precipitate, g, and

B = mass of salt in aliquot, g.

### 40. Report

40.1 Report the percentage of sulfate to the nearest 0.001 %.

### 41. Precision and Bias<sup>5</sup>

41.1 Ten laboratories analyzed six samples in duplicate on two different days. **Practice E180** was followed for the design and analysis of the data; the details are given in **ASTM Research Report RR:E15-1052**.

41.1.1 *Intermediate Precision formerly called Repeatability (Single Analyst)*—The coefficient of variation for a single determination has been estimated to be 7.14 % relative at 120 df. The 95 % limit for the difference between two such runs is 20 % relative.

41.1.2 *Laboratory Precision (Within-Laboratory, Between-Days Variability)*—The coefficient of variation of results (each the average of duplicates), obtained by the same analyst on different days, has been estimated to be 8.03 % relative at 60 df. The 95 % limit for the difference between two such averages is 22 % relative.

41.1.3 *Reproducibility (Multilaboratory)*—The coefficient of variation of results (each the average of duplicates), obtained by the same analyst in different laboratories, has been estimated to be 8.01 % relative at 9 df. The 95 % limit for the difference between two such averages is 22 % relative.

41.1.4 *Bias*—The bias of this test method has not been determined due to the unavailability of suitable reference materials.

## 42. Quality Guidelines

42.1 Laboratories shall have a quality control system in place.

42.1.1 Confirm the performance of the test instrument or test method by analyzing a quality control sample following the guidelines of standard statistical quality control practices.

42.1.2 A quality control sample is a stable material isolated from the production process and representative of the sample being analyzed.

42.1.3 When QA/QC protocols are already established in the testing facility, these protocols are acceptable when they confirm the validity of test results.

42.1.4 When there are no QA/QC protocols established in the testing facility, use the guidelines described in Guide D6809 or similar statistical quality control practices.

### REPORTING OF ANALYSES

## 43. Scope

43.1 Analyses should be reported on a dry basis. If analyses are on an as received sample, correction should be made by converting to a dry basis. Sodium chloride purity is determined by subtracting the total percentage of impurities from 100. Moisture should be reported as a separate value.

## 44. Procedure

44.1 Convert sulfate to calcium sulfate and the unused calcium to calcium chloride unless the sulfate in sample exceeds the quantity necessary to combine with the calcium. In this case, convert the calcium to calcium sulfate and the unused

sulfate first to magnesium sulfate, and the remaining sulfate, if any, to sodium sulfate. Convert the unused magnesium to magnesium chloride.

44.2 Report rock and solar salt impurities to the second decimal place and salt purity, by difference, to the first decimal place.

44.3 Report evaporated salt impurities to the third decimal place and salt purity, by difference, to the second decimal place.

44.4 Report purified salt impurities to the fourth decimal place and salt purity, by difference, to the third decimal place.

## 45. Conversion Factors

BaSO <sub>4</sub>	× 0.4116 = SO <sub>4</sub>
BaSO <sub>4</sub>	× 0.5832 = CaSO <sub>4</sub>
BaSO <sub>4</sub>	× 0.6086 = Na <sub>2</sub> SO <sub>4</sub>
Ca	× 3.3967 = CaSO <sub>4</sub>
Ca	× 0.6064 = Mg
CaSO <sub>4</sub>	× 0.2944 = Ca
CaSO <sub>4</sub>	× 0.8153 = CaCl <sub>2</sub>
CaSO <sub>4</sub>	× 0.8842 = MgSO <sub>4</sub>
CaSO <sub>4</sub>	× 1.0434 = Na <sub>2</sub> SO <sub>4</sub>
Mg	× 3.9173 = MgCl <sub>2</sub>
MgCl <sub>2</sub>	× 1.4296 = CaSO <sub>4</sub>
MgCl <sub>2</sub>	× 1.2641 = MgSO <sub>4</sub>
MgSO <sub>4</sub>	× 1.4299 = CaSO <sub>4</sub>
MgSO <sub>4</sub>	× 1.1311 = MgCl <sub>2</sub>
MgSO <sub>4</sub>	× 1.1800 = Na <sub>2</sub> SO <sub>4</sub>
SO <sub>4</sub>	× 1.4173 = CaSO <sub>4</sub>

## 46. Keywords

46.1 calcium; evaporated salt; magnesium; moisture; purified salt; rock salt; sodium chloride; sulfate; water insolubles

## SUMMARY OF CHANGES

Committee D16 has identified the location of selected changes to this standard since the last issue (E534-13) that may impact the use of this standard. (Approved February 1, 2018.)

(1) Quality Guidelines were added to Section 17, Section 26, Section 34, and Section 42.

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Phone: 1+800-600-7258

December 8, 2023

Cargill, Inc. – Salt, Road Safety (“Cargill”) is submitting its Bulk Ice Control rock salt product to be considered for award by State of West Virginia and all its participants. Our Bulk Ice Control salt meets the ASTM D632 Grade 1 specification as well as the AASHTO M143 specification for deicer salt quality and gradation. These standard specifications are widely used and accepted by highway and transportation officials across the U.S.

Sincerely,

Steven Lingenfelter  
FSQR Chemist II



1804 N. 33rd Street  
Boise, Idaho 83703  
Phone (208) 342-5515

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Lab Federal ID# ID00020

**Laboratory Analysis Report**

Report To: LIBBY BOCCAROSSE  
CARGILL - DEICING TECHNOLOGIES  
191 PORTLAND POINT RD PO BOX B  
LANSING, NY 14882

Lab/Sample Number: 2301332-01  
Sample Location: GRANULAR SALT CLEVELAND MINE SALT -  
ROCK SALT W/O YPS 1/19/23

Phone: (607) 533-3766 Copy:  
e-mail: libby\_boccarosse@cargill.com  
Date Received: 01/20/2023  
Collection Date/Time: 01/19/2023 0:00

Date Printed: 02/09/2023 7:20  
Collector's Name:  
Transported By: FEDEX  
Temp C Received at Lab:

**Field Measurements**

pH: Total Chlorine mg/L: DO mg/L:  
Temp C: Free Chlorine mg/L: Flow g/min:

Analyte	Result	Units	MRL	MDL	MCL	Analyzed	Analyst	Method	Notes
<b>Inorganics</b>									
Percent Moisture	0.02	%	0.05	0.05		1/26/23 8:44	HAL	ASTM	
Sulfate, SO4	1.4	% wt	0.4	0.04		1/26/23 13:53	NC	EPA 300.0	
Water Insolubles	0.360	%	0.002	0.002		1/26/23 10:58	MAA	ASTM E 534	
<b>Metals by ICP</b>									
Calcium, Ca	0.64	% wt	0.04	0.0005		1/26/23 14:30	JMS	EPA 6010D	
Magnesium, Mg	ND	% wt	0.04	0.0005		1/26/23 14:30	JMS	EPA 6010D	
<b>Total Metals</b>									
Metals Digestion	COMPLETE					1/23/23 10:18	JMS	EPA 3050	
Sodium Chloride	97.3	% wt	0.12	0.12		2/7/23 14:41	JH	ASTM E 534	
Gradation, % WT Passing #30 sieve	12.1	%				1/26/23 9:47	HAL	ASTM D 632	
Gradation, % WT Passing #4 sieve	70.1	%				1/26/23 9:47	HAL	ASTM D 632	
Gradation, % WT Passing #8 sieve	47.1	%				1/26/23 9:47	HAL	ASTM D 632	
Gradation, % WT Passing 3/4 Inch sieve	100	%				1/26/23 9:47	HAL	ASTM D 632	

Authorized Signature,

James Hibbs, Client Manager

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The results reported related only to the samples indicated.

ND - Non Detect  
MCL - Maximum Contaminant Level  
MDL - Method Detection Limit  
MRL - Method Reporting Limit



1804 N  
Boise,  
Phone



2301332

## Analytical Services Quotation

Printed: 01/10/2023

For: **CARGILL - LANSING**  
**191 PORTLAND POINT RD PO BOX B**  
**LANSING, NY 14882**

Effective: 01/10/2023  
 Expires: 01/10/2024

Project: Granular Salt 1332-01

Manager: ACCTS PAYABLE

Phone: (607) 533-3766

Email: cargillfsc\_accountspayable@cargill.

### Pricing Summary

Analysis	Method	Qty	TAT (days)	Unit Price	Extended Price
<b>Deicer</b>					
<i>Inorganics</i>					
Water Insolubles	ASTM E 534	1	15	\$24.00	\$24.00
Sulfate	EPA 300.0	1	15	\$20.00	\$20.00
Percent Moisture	ASTM	1	15	\$15.00	\$15.00
<i>Metals by ICP</i>					
Magnesium by EPA 6010	EPA 6010D	1	15	\$16.00	\$16.00
Calcium by EPA 6010	EPA 6010D	1	15	\$16.00	\$16.00
<i>Total Metals</i>					
Sodium Chloride (Solid Deicer)	ASTM E 534	1	15	\$25.00	\$25.00
Gradation	ASTM D 632	1	15	\$35.00	\$35.00
Metals Digestion	EPA 3050	1	15	\$22.00	\$22.00

Comments:

**Bid Total: \$173.00**

P.O. # 4512352410

Rcvd 945 1/20  
 via FedEx - *[Signature]*

*[Signature]*

James Hibbs  
 Client Manager



## Laboratory Analysis Report

Report To: STEVEN LINGENFELTER  
CARGILL  
916 S RIVERSIDE AVE  
ST. CLAIR, MI 48079

Phone: (586) 453-1307 Copy:  
e-mail: steven\_lingenfelter@cargill.com  
Date Received: 03/17/2023  
Collection Date/Time: 03/09/2023 0:00

Lab/Sample Number: 2305063-01  
Sample Location: LANSING MINE

Date Printed: 04/05/2023 15:27  
Collector's Name:  
Transported By: UPS  
Temp C Received at Lab:

### Field Measurements

pH: Total Chlorine mg/L: DO mg/L:  
Temp C: Free Chlorine mg/L: Flow g/min:

Analyte	Result	Units	MRL	MDL	MCL	Analyzed	Analyst	Method	Notes
<b>Inorganics</b>									
% Moisture	0.3	%	0.1	0.1		3/23/23 13:51	ES	ASTM	
Sulfate, SO4	0.6	% wt	0.4	0.04		3/20/23 16:43	NC	EPA 300.0	
Water Insolubles	1.11	%	0.002	0.002		3/23/23 9:52	MAA	ASTM E 534	
<b>Metals by ICP</b>									
Calcium, Ca	0.34	% wt	0.04	0.0005		3/21/23 13:35	JMS	EPA 6010D	
Magnesium, Mg	ND	% wt	0.04	0.0005		3/21/23 13:35	JMS	EPA 6010D	
<b>Total Metals</b>									
Metals Digestion	COMPLETE					3/20/23 8:35	ES	EPA 3050	
Sodium Chloride	97.6	% wt	0.12	0.12		3/23/23 14:43	JH	ASTM E 534	
Gradation, % WT Passing #30 sieve	10.3	%				4/5/23 15:02	ES	ASTM D 632	
Gradation, % WT Passing #4 sieve	83.4	%				4/5/23 15:02	ES	ASTM D 632	
Gradation, % WT Passing #8-sieve	54.6	%				4/5/23 15:02	ES	ASTM D 632	
Gradation, % WT Passing 3/4 inch sieve	0.0	%				4/5/23 15:02	ES	ASTM D 632	

### Remarks

DATE TAKEN FROM SAMPLE CONTAINER

Authorized Signature,

James Hibbs, Client Manager





1804 N. 33rd Street  
Boise, Idaho 83703  
Phone (208) 342-5515

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MCL - Maximum Contaminant Level  
MDL - Method Detection Limit  
MRL - Method Reporting Limit



2305063

Please charge the following tests to this Purchase Order Number: 4512352410

5063-01

Percent Moisture (ASTM)

Sulfate (EPA 300.0)

Water Insoluble (ASTM E 534)

Metals by ICP (EPA 6010D)

Calcium, Ca

Magnesium, Mg

Lansing Mine

Sodium Chloride Purity (ASTM E 534)

Gradation (ASTM D632)

3/8 sieve (% passing)

#4 sieve (% passing)

#8 sieve (% passing)

# 30 sieve (% passing)

Contact information

Steven Lingenfelter

916 S Riverside Ave

St. Clair, MI 48079

[Steven\\_lingenfelter@Cargill.com](mailto:Steven_lingenfelter@Cargill.com)

1-586-453-1307

2cvd UPS 3/17 0920 Jee



COMMERCIAL NAME

DEICING SALT ASTM-632

**1.- Chemical Specification**

<u>Determination</u>	<u>Unit</u>	<u>Specification</u>	
Sodium Chloride (as NaCl)	(%)	97.00	Min
Moisture	(%)	0.40	Max
YPS	(ppm)	70-100	

**2.- Mesh Size**

<u>USA Sieve (#)</u>	<u>Unit</u>	<u>Specification</u>
1/2"	(%)	100 Passing
3/8"	(%)	95 - 100 Passing
4	(%)	20 - 90 Passing
8	(%)	10 - 60 Passing
30	(%)	0 - 15 Passing

Revision 0



## MATERIAL SAFETY DATA SHEET (MSDS) SALT – SODIUM CHLORIDE

### SECTION I – GENERAL

Trade Name: <b>SALT</b>	C.A.S. Number: <b>7647-14-5</b>
Chemical Name: <b>SODIUM CHLORIDE</b>	Formula: <b>NaCl</b>
Molecular Weight: <b>58.4428</b>	
Address: <b>Cerro El Plomo 5680 Of 404 Las Condes Santiago Chile</b>	Contacts: <b>Jaime Lagos C. Phone: 56 (2) 24294470 Date Issued: 05-05-2018 Date Revised: 02-03-2023</b>

### SECTION II – FIRST AID

Emergency Phone Number: <b>56 (2) 24294470</b>
Skin: <b>Wash with water</b>
Eyes: <b>Irrigate with plenty of water</b>

### SECTION III - HAZARDS INFORMATION – HEALTH

Inhalation: <b>Inhalation of product may cause mild irritation of nose and throat</b>
Ingestion: <b>Ingestion of large amounts (greater than 0.1 lb) may cause gastrointestinal upset.</b>
Skin: <b>Dust may cause irritation.</b>
Eyes: <b>Dust may cause irritation.</b>
Permissible Concentration: Air: <b>None established</b> Biological: <b>No TLV established</b>
Unusual Chronic Toxicity: <b>None</b>

### SECTION IV - HAZARDS INFORMATION

Flash Point °C : <b>Not flammable</b> Auto ignition Temp °C : <b>N/A</b>
Open Cup Closed Cup
Flammable Limits In Air (% by volume) – <b>N/A</b>

### SECTION V – PRECAUTIONS/PROCEDURES

Fire Extinguishing Agents Recommended: <b>N/A</b> Fire Extinguishing Agents to Avoid: <b>N/A</b>
Special Fire Fighting Precautions: <b>N/A</b>
Ventilation: <b>Local exhaust if dusty conditions prevail.</b>
Normal Handling: <b>Avoid eye contact or prolonged skin contact.</b>
Storage: <b>Wet or damp conditions can cause caking or corrosion of metal contact surfaces.</b>
Spill or Leak: <b>Shovel up dry material into an empty container. Flush residue with water down local sewer.</b>
Special: Precautions/Procedures/Label Instructions: <b>Store in cool, dry area. No special cautions or labeling are required.</b>

### SECTION VI – PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: <b>When required, use a respirator approved by NIOSH for product dust.</b>
Eyes and Face: <b>In extremely dusty areas, chemical safety goggles should be used.</b>
Hands, Arms, and Body: <b>Wear long-sleeved shirts and trousers for routine product handling. Gloves are optional.</b>
Other Clothing and Equipment: <b>N/A</b>

**SECTION VII – PHYSICAL DATA**

Material is (At Normal Conditions)    **Liquid**    **Solid**    **Gas**    \_\_\_\_\_  
 Appearance and Odor: **White crystalline solid. Slight saline odor.**  
 Boiling Point: **1465°C**                      Specific Gravity (H<sub>2</sub>O = 1): **2.16**    Vapor Density (Air – 1): **N/A**  
 Melting Point: **800°C**                      Vapor Pressure (mm Hg at 20°C): **2.4 mm at 746.9°C**  
 Solubility In Water (% By Weight): **26.395 Max at 60°F**    ph (20% Solution): **6.5 – 9.5**

**SECTION VIII – REACTIVITY DATA**

Stability:    **Stable**    **Unstable**  
 Conditions to Avoid: **Wet/damp conditions can cause caking and corrosion.**  
 Incompatibility (Materials to Avoid): **None provided the product is dry.**  
 Hazardous Decomposition Products: **None**  
 Hazardous Polymerization:    **May Occur**    **Will Not Occur**  
 Conditions To Avoid:

**SECTION IX – HAZARDOUS INGREDIENTS (Mixtures Only)**

Material or Component/ C.A.S. No.: **Sodium Chloride, CAS 7645-14-5**

Weight %:

Hazard Data (See Section J):

**SECTION X – ENVIRONMENTAL**

Degradability / Aquatic Toxicity: **Product is inorganic and may persist in the environment.** EPA Hazardous Substance?

**Yes**    **No**    If so, reportable quantity \_\_\_\_\_    40 CFR    **116 – 117**

Waste Disposal Methods (Disposer Must Comply With Federal, State and Local Disposal or Discharge Laws): **Flush to sewer if permitted by applicable disposal regulations.**

RCRA Status of Unused Material: **Not a "hazardous waste."**

40 CFR    **261**

**SECTION XI – REFERENCES**

Permissible Concentration References:

Regulatory Standards: **FDA regulations apply to food use and USP/NF grades (21 CFR).**

**USDA regulations apply to use in meat and poultry**

**products.** D.O.T. Classification: **N/A - 49 CFR**

General: **(a) Recommendations of the Salt Institute**

**SECTION XII – ADDITIONAL INFORMATION**

**This product is not for food or drug use unless material is labeled "food grade", "USP grade", or "NF grade", as applicable.**

**This product safety data sheet is offered solely for your information, consideration and investigation. Compania Minera Punta de Lobos S.A. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.**

**Safety Data Sheet**  
**According to Regulation (EC) No 1907/2006**

Sodium Ferrocyanide

Version 1.0

Issue date: 15/12/2017

Revision date: 15/12/2017

SDS Record Number: C55S-TCO-010-100177

**Section 1 Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: Sodium Ferrocyanide  
Additional identification: Sodium Ferrocyanide  
Identification of the product: CAS#13601-19-9; EC#237-081-9  
Index Number: Not available  
REACH registration No.: Not available

**1.2 Relevant identified uses of the substance and uses advised against:**

**1.2.1 Identified uses:**

Used for carburizing steel, leather tanning, dyeing, printing, pharmaceutical.

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier(Only representative): Chemical Inspection & Regulation Service Limited  
Supplier(Manufacturer): Hebei Chengxin Co., Ltd.  
Address: Yuanzhao Road, Yuanshi County, Shijiazhuang City, China  
Contact person(E-mail): chengxin@hebeichengxin.com  
Telephone: +86-(0)311-84635784  
Fax: +86-(0)311-84636311

**1.4 Emergency telephone Number:**

+353 419806916

Available outside office hours? YES  NO

**Section 2 Hazards Identification**

**2.1 Classification of the substance/mixture:**

**2.1.1 Classification:**

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard codes
N/A	N/A

For full text of H- phrases: see section 2.2.

**2.2 label elements:**

**Hazard Pictograms:** No hazard pictogram is used.  
**Signal Word(S):** No signal word is used.  
**Hazard Statement:** Not applicable.  
**Precautionary statement:** Not applicable.

**2.3 Other hazards:**

Not available.

Aspiration hazard:

Not classified

**Section 12 Ecological information****12.1 Toxicity:**

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

**12.2 Persistence and degradability:** No data available.**12.3 Bioaccumulative potential:** Not available.**12.4 Mobility in soil:** Not available.**12.5 Results of PBT&vPvB assessment:** Not available.**12.6 Other adverse effects:** Not available.**Section 13 Disposal considerations****13.1 Waste treatment methods:** The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.**Section 14 Transport information**

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard Class	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated

**Section 15 Regulation information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed.  
For use only by technically qualified individuals.

Other National regulations: Not applicable

**15.2 Chemical Safety Assessment has been carried out?** YES  NO **Section 16 Other information****16.1 Indication of changes:**

Version 1.0 Amended by (EU) 2015/830

Product name: Sodium Ferrocyanide  
Version #: 1.0 Issue date: 15-12-2017. Revision date: 15-12-2017.SDS EU  
5 / 6

**16.2 Training instructions:**

Not applicable.

**16.3 Further information:**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.4 Notice to reader:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Author: Hangzhou reach product technic Co.,Ltd Website:[www.cirs-group.com](http://www.cirs-group.com) Tel:0571-87206555 Email:info@cirs-group.com



## Egyptian Rock Salt Product Specifications

**Product:** Deicing Salt, ASTM-632

**Specifications:**

NaCl:	97.00% (dry basis)
Moisture:	1.5% max
Water Insoluble Matter:	1.00% max
YPS:	50 - 100 ppm

**Mesh Size:**

USA.SS	½-inch	100%	Passing
USA.SS	¾-inch	95 - 100%	Passing
USA.SS N°	4	20 - 90%	Passing
USA.SS N°	8	10 - 60%	Passing
USA.SS N°	30	0 - 15%	Passing

## SECTION I -- PRODUCT INFORMATION

**PRODUCT NAME:** Sodium Chloride  
**SHIPPING NAME:** Not regulated  
**CHEMICAL NAME & SYNONYMS:** Sodium Chloride (NaCl), Salt, Rock Salt,  
**PREPARATION DATE:** April 3, 2018

## SECTION II -- COMPOSITION

<u>Chemical Identity</u>	<u>CAS #</u>	<u>% by Weight</u>	<u>ACGIH (TLV)</u>	<u>LD50(mg/kg)</u>
Sodium Chloride	7647-14-5	90-100	10 mg/m <sup>3</sup>	3500 (oral, rat)

## SECTION III -- HAZARDOUS INGREDIENTS

- Sodium Chloride is not classified as a hazardous material by the criteria of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- FDA GRAS LIST; Permitted in Food.
- Does not contain toxic chemicals subject to SARA TITLE III SECTION 313 reporting.
- DOT HAZARD -- Non Hazardous.

## SECTION IV -- PHYSICAL DATA

**MELTING POINT:** 801° C  
**BOILING POINT:** 1413° C  
**VAPOR PRESSURE:** 1 mm @ 865° C  
**%NON-VOLATILES (VOL.):** 100  
**SOLUBILITY (H<sub>2</sub>O):** 36 g/100g H<sub>2</sub>O @ 20° C  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 2.16  
**EVAPORATION RATE (ETHER=1):** Not applicable  
**VAPOR DENSITY (AIR=1):** Not applicable  
**ODOR:** None  
**APPEARANCE:** White crystalline solid

## SECTION V -- FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT:** Not applicable  
**FLAMMABLE LIMITS:** Not applicable  
**EXTINGUISHING MEDIA:** Non-combustible  
**FIRE & EXPLOSION HAZARDS:** None  
**FIRE FIGHTING EQUIPMENT:** Wear positive pressure, self-contained breathing apparatus

**SECTION VI -- REACTIVITY DATA**

**STABILITY:** Stable

**INCOMPATIBILITY:** Lithium, bromine, trifluoride, strong acids & strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When heated to temperatures above 801°C, may emit toxic fumes of chlorine and sodium oxides.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**SECTION VII -- HEALTH HAZARD DATA**

**EYE:** May cause mild to moderate temporary irritation.

**SKIN:** Contact with abraded skin may cause a mild irritation or rash.

**INHALATION:** Dust may cause nose, throat and respiratory tract irritation.

**INGESTION:** Less than a few grams would not be harmful but large doses may cause vomiting.

**CARCINOGENICITY:** Not hazardous.

**REPRODUCTIVE TOXICITY/TERATOGENICITY:** No data available.

**SECTION VIII -- FIRST AID**

**EYES:** Flush with water for 15 minutes. If irritation persists, call a physician.

**SKIN:** Wash with soap and water. Call a physician if irritation develops.

**INHALATION:** Not a normal route of entry.

**INGESTION:** Ingesting large volumes may cause vomiting. Rinse mouth with water. If vomiting occurs naturally, have Victim lean forward to reduce risk of aspiration. Call a physician.

**SECTION IX -- PREVENTATIVE MEASURES**

**VENTILATION:** If desired due to dust.

**RESPIRATORY PROTECTION:** Dust mask not needed but may be used for comfort.

**SKIN PROTECTION:** Work gloves desirable but not required.

**EYE PROTECTION:** Safety glasses if risk of eye contact.

**SPILL OR LEAK:** Use broom or dry vacuum to collect material for proper disposal. Rinse area with water.

**WASTE DISPOSAL:** Review federal, state provincial and local governmental requirements prior to disposal. Keep out of drinking water sources.

**STORAGE:** Store in a dry area. Keep container tightly closed. Do not get in eyes, on skin or clothing. Keep away from incompatible materials.

	HMIS	NFPA		HMIS	NFPA
			4	Severe	Extreme
Health	0	0	3	Serious	High
Flammability	0	0	2	Moderate	Moderate
Reactivity	0	0	1	Slight	Slight
PPE	A		0	Minimal	Insignificant

A = Safety Glasses

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. The information provided in this Material Safety Data Sheet represents data from the manufacturer and/or vendor and is accurate to the best of our knowledge. By providing this information, Flat Rock Bagging makes no guarantee or warranty, expressed, or implied, concerning the safe use, storage, handling, precautions, and/or disposal of the products covered or the accuracy of the information contained in this fact sheet. It is the responsibility of the user to comply with local, state, and federal laws and regulations concerning the safe use, storage, handling, precautions, and/or disposal of products covered in this fact sheet.

# Bulk Ice Control Salt



## Product Description and Application

### Bulk Ice Control Salt

This product is a coarse screened, sodium chloride salt obtained from underground bedded salt deposits extracted by physical mining. This salt is intended for use only as a chemical deicer on highways and roadways.

This salt complies with ASTM D 632, Type 1, Grade 1, Standard Specification for Sodium Chloride. This salt may contain Yellow Prussiate of Soda, which is added to improve caking resistance.

This product is not approved for human or animal consumption and is intended for use only in chemical or industrial applications.

### Methods of Analysis

Methods of analysis and product performance evaluation based on ASTM E 534, ASTM D 632 and Cargill internal methods.

### Producing Locations

This product is mined at Cargill Salt locations, Avery Island, LA; Cleveland, OH; Lansing, NY. Product of the USA.



## Why Cargill?

- Salt products are an integral part of Cargill – one of the world's largest food ingredient providers and a recognized leader in the food processing industry.
- Our products go well beyond standard and high purity salt: Our Alberger® brand, Microsized®, Premier™, CMF®, sea salts, and our sodium reduction solutions such as Potassium Pro® and FlakeSelect®, make up the most extensive product line in the Industry.
- We offer full EDI capabilities for customers who need to exchange information via Electronic Data Interchange and the only online ordering portal in the industry, [www.cargillsaltstore.com](http://www.cargillsaltstore.com).
- Cargill's nationwide distribution capabilities, combined with the best logistics and customer service specialists in the business, ensure that you get the right salt at the right time.

[www.cargillsaltstore.com](http://www.cargillsaltstore.com)

Customer Service: (800) 600-SALT (7258)

## Physical Information

### Chemical Analysis

PHYSICAL	TYPICAL
Sodium Chloride (dry) CAS No. 7647-14-5 %	98.0
Water Insolubles %	2.0 max.
Surface Moisture %	1.0 max
Yellow Prussiate of Soda* CAS No. 13601-19-9 ppm	50

\*Optional anti-caking agent

### Sieve Analysis

PERCENT PARTICLE SIZE DISTRIBUTION (SCREENS)	OPENING INCHES	OPENING MICRONS	TYPICAL % PASSING
Sieve - USS 1/2 Mesh Retained	0.500	12500	100
Sieve - USS 3/8 Mesh Retained	0.375	9500	98
Sieve - USS 4 Mesh Retained	0.187	4750	75
Sieve - USS 8 Mesh Retained	0.0937	2360	42
Sieve - USS 30 Mesh Retained	0.0232	600	10

### Bulk Density

PARAMETER	TYPICAL
Pounds per Cubic Foot	75
Grams per Liter	1200

### Product Configuration

PRODUCT NAME	SAP DESCRIPTION	SAP NUMBER
Bulk Ice Control Salt		
Bulk	DEICER SALT ICE CNTRL BLK DR	100011135

## CONTACT

Cargill Salt  
P.O. Box 5621  
Minneapolis, MN 55440  
Phone: 888-385-SALT (7258)  
[www.cargillsalt.com](http://www.cargillsalt.com)

All specifications are approximate. Please contact your broker or Cargill representative for exact specifications.

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SALT-3892 (10/19)

[www.cargillsalt.com](http://www.cargillsalt.com)  
[www.cargilldeicing.com](http://www.cargilldeicing.com)





# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Bulk Ice Control Salt with YPS

**Other means of identification**

**SDS number** NB2

**Synonyms** Bulk Rock Salt with YPS \* Ice Control Salt. \* Halite \* Sodium Chloride (Salt).

**Recommended use** Salt is intended for several industrial applications including deicing.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor Information

#### Manufacturer

**Company name** Cargill Incorporated

**Address** Minneapolis, MN 55440

**Telephone** 1-888-385-7258

**Website** www.cargillsalt.com

**Emergency telephone number** CHEMTREC (800) 424-9300

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA defined hazards** Not classified.

#### Label elements

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The mixture does not meet the criteria for classification.

#### Precautionary statement

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS number	%
Sodium Chloride	7647-14-5	95.8-99.8
Sodium Ferrocyanide Decahydrate	13601-19-9	0.0050-0.0100

GRAS Substance (Generally Recognized As Safe).

## 4. First-aid measures

**Inhalation** If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

<b>Ingestion</b>	Give one or two glasses of water if patient is alert and able to swallow. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed such as: Carbon oxides (CO <sub>x</sub> ). Hydrogen Chloride (HCl). Hydrogen cyanide. Metal oxides.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use water spray to cool unopened containers.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	This product is not flammable or combustible.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Avoid release to the environment. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with water and moisture. Keep away from strong acids. Practice good housekeeping.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Becomes hygroscopic at 70-75% relative humidity. Avoid humid or wet conditions as product will cake and become hard.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Unvented, tight fitting goggles should be worn in dusty areas.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Skin protection</b>	
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.