

Clear Roads Qualified Product List - PRODUCTS
Date of Listing: May 5, 2023



Category 1 - Corrosion Inhibited Liquid Magnesium Chloride

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Iceban 200*	Earth Friendly Chem.	8	26%	8/15/2002	12/31/2024
Caliber M1000 AP	Envirotech Services Inc.	21	28%	8/2/2004	12/31/2024
Meltdown with Shield AP	Envirotech Services Inc.	26	30%	8/2/2004	12/31/2024
Hydro-Melt Green	Cargill	24	28%	8/1/2005	12/31/2024
Meltdown APEX with Shield AP	Envirotech Services Inc.	25	30%	1/25/2006	12/31/2024
FreezGard CI Plus	Compass Minerals	12	30%	8/28/2006	12/31/2024
Ice B'Gone II HF	Sears Ecological Appl.	29	25%	8/9/2007	12/31/2024
FreezGard LITE CI Plus	Compass Minerals	12	27%	6/13/2011	12/31/2024
HydroMelt Liquid Deicer	Cargill	28	29%	8/15/2011	12/31/2024
FreezGard CI Plus Sub Zero	Compass Minerals	14	28%	10/11/2011	12/31/2024
Torch IB	GMCO Corporation	25	27%	1/10/2013	12/31/2024
Torch CI	GMCO Corporation	21	30%	1/10/2013	12/31/2024
Meltdown Apex	Envirotech Services Inc.	22	30%	4/16/2014	12/31/2024
Meltdown Inhibited	Envirotech Services Inc.	24	30%	4/29/2014	12/31/2024
ProMelt MAG 30 INH	Innovative Surface Solutions	25	30%	7/31/2015	12/31/2024
ProMelt Ultra 1000 INH	Innovative Surface Solutions	28	27%	7/31/2015	12/31/2024
Torch LT	GMCO Corporation	25	30%	12/17/2015	12/31/2024
NexGen Liquid De-Icer	Paradigm Group	25	30%	5/12/2017	12/31/2024

Note-Iceban 200 was formerly Iceban Performance Plus M;
Torch IB was formerly Ice Ban 305; Torch CI was FreezGard 0 CCI; Torch LT was NextGen Torch
Those products marked with an asterisk (*) indicates that the stratification can be seen and agitation is required.

Category 2 - Corrosion Inhibited Liquid Calcium Chloride

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Liquid Dow Armor	Dow Chemical	26	30%	6/25/1999	12/31/2024
Winter Thaw DI	Tetra Technologies	16	32%	9/13/1999	12/31/2024
Corguard TG	Tiger Calcium Services	28	29%	1/9/2001	12/31/2024
Road Guard Plus	Tiger Calcium Services	16	25%	6/5/2006	12/31/2024
Calcium Chloride with Boost (CCB)	America West	18	32%	4/10/2014	12/31/2024
Meltdown Apex-C	EnviroTech Services Inc.	24	29%	8/21/2015	12/31/2024
C1000 Pro	EnviroTech Services Inc.	28	27%	9/8/2015	12/31/2024

Category 3 - Liquid Calcium Magnesium Acetate

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Liquid CMA 25%	Cryotech	-11	25%	5/19/1998	12/31/2024
SC CMA 25%	Sure Crop Farm Services	-3	25%	9/13/1999	12/31/2024

Category 4 - Corrosion Inhibited Solid Sodium Chloride

Category 4A- Corrosion Inhibited Solid Sodium Chloride, Grade 2, Maximum Moisture Content 0.5% (Corrosion Percent Effectiveness of 30% or less)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Inhibited Ice Slicer	Envirotech	30	N/A	5/19/1998	12/31/2024
CG-90 Non-Phosphate 2.8%	Cargill	27	N/A	5/19/1998	12/31/2024
IMC CI SALT A 3.5	Compass Minerals	28	N/A	8/21/2001	12/31/2024
IMC CI SALT B 4.5	Compass Minerals	19	N/A	8/21/2001	12/31/2024
Clear Lane PNS Enhanced Deicer	Cargill	29	N/A	8/1/2005	12/31/2024
Ice Slicer Elite	Envirotech Services Inc.	16	N/A	8/1/2005	12/31/2024

Category 4B- Corrosion Inhibited Solid Sodium Chloride - Modified Gradation, Maximum Moisture Content 5% (Corrosion Percent Effectiveness 31% to 85%)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Ice Slicer RS	Redmond	80	N/A	10/13/2009	12/31/2024
Ice Slicer Super Blend Plus	Redmond	60	N/A	10/13/2009	12/31/2024
Ice Breaker MG	Willow Creek Salt	35	N/A	10/4/2021	12/31/2026

Category 4C- Corrosion Inhibited Solid Sodium Chloride - Grade 2, Maximum Moisture Content 5% Standard Gradation (Corrosion Percent Effectiveness 31% to 85%)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Clear Lane Enhanced Deicer	Cargill	54	N/A	10/2/2015	12/31/2024
Ice Kicker	SaltWorx	50	N/A	7/5/2016	12/31/2024
SOS Treated Salt	Envirotech Services Inc.	66	N/A	5/12/2017	12/31/2024
Ice Slicer CB	Envirotech Services Inc.	61	N/A	5/12/2017	12/31/2024
Leed Melt G500	Leed Salt	68	N/A	6/6/2018	12/31/2024
Ice Breaker SG	Willow Creek Salt	80	N/A	10/4/2021	12/31/2026
Ice Slicer RS	Redmond Minerals	75	N/A	1/26/2022	12/31/2027
SnowSlicer	Lyons Salt Company	51	N/A	9/6/2022	12/31/2027

Category 4D - Corrosion Inhibited Solid Sodium Chloride - Grade 1, Max Moisture .5 (Corrosion Percent Effectiveness 30% or less)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
[currently no products]					

Category 4E - Corrosion Inhibited Solid Sodium Chloride - Grade 1, Max moisture 10% (Corrosion Percent Effectiveness 31% to 85%)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
[currently no products]					

Category 5 - Corrosion Inhibited Sodium Chloride Plus 10% Magnesium Chloride (Solid)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
CG-90 Surface Saver 10%	Cargill	15	N/A	5/19/1998	12/31/2024
Meltdown 10	Envirotech	30	N/A	5/19/1998	12/31/2024
Surface Saver PNS 10%	Cargill	27	N/A	8/21/2001	12/31/2024

Category 6 - Corrosion Inhibited Sodium Chloride Plus 20% Magnesium Chloride (Solid)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
CG-90 Surface Saver 22%	Cargill	26	N/A	5/19/1998	12/31/2024
Meltdown 20	Envirotech Services Inc.	27	N/A	8/8/2000	12/31/2024
Surface Saver PNS 20%	Cargill	22	N/A	8/21/2001	12/31/2024

Category 7 - Solid Calcium Magnesium Acetate (CMA)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
CMA	Cryotech	-7	96%	5/19/1998	12/31/2024

Category 8 - Non Corrosion Inhibited Solid Sodium Chloride

CATEGORY 8A-B Standard Gradation, Brining Salt, Insoluble Material less than 1%, and Moisture less than 0.5%.

Product Name	Manufacturer			Date Approved	Expiration
DriRox Coarse Salt*	Compass Minerals			9/21/2012	12/31/2024
Bulk Coarse Solar	Morton Salt			4/21/2006	12/31/2024
Intrepid Coarse Salt	Intrepid Potash			6/3/2010	12/31/2024
Kiln Dry Coarse Salt	Broken Arrow			12/17/2015	12/31/2024
Salt	Surplus Salt			1/30/2019	12/31/2024

* Product was renamed from NASC Salt (Coarse). The product has been approved since 8/2000.

CATEGORY 8A-R Standard Gradation, Road Salt, Insoluble Material less than 10%, and Moisture less than 0.5%.

Product Name	Manufacturer			Date Approved	Expiration
Cargill Dry Salt	Cargill			6/1/1998	12/31/2024
Rocanville Standard	NSC Minerals			6/1/1998	12/31/2024
DriRox Coarse Salt*	Compass Minerals			9/21/2012	12/31/2024
Kayway Salt (Coarse)	Kayway Industries			12/23/2003	12/31/2024
Bulk Coarse Solar	Morton Salt			4/26/2005	12/31/2024
Ice Slicer Super Blend	Redmond Mineral			8/2/2006	12/31/2024
ISCO Bulk Rock Salt	K+S			6/23/2008	12/31/2024
Natural Alternative Ice Melt	NaturaLawn of America			5/17/2010	12/31/2024
Intrepid Coarse Salt	Intrepid Potash			6/3/2010	12/31/2024
Kiln Dry Coarse Salt	Broken Arrow			12/17/2015	12/31/2024
Vanscoy Coarse	NSC Minerals			12/5/2017	12/31/2024
Sodium Chloride	Independent Salt Co.			12/5/2017	12/31/2024
Bulk Rock Salt	Hutchinson Salt Co.			1/17/2018	12/31/2024
VS Rock Salt	Valley Salt Co			6/6/2018	12/31/2024
Bulk Deicing Salt	Lyons Salt**			9/12/2018	12/31/2024
Salt	Surplus Salt LLC			1/30/2019	12/31/2024

* Product was renamed from NASC Salt (Coarse). The product has been approved since 8/2000.

** Formerly Central Salt

CATEGORY 8B - Insoluble Material less than 10%, and Moisture less than 5.0%.

Product Name	Manufacturer	%Moisture	Date Approved	Expiration
Ice Slicer RS	Redmond Mineral	1.95	2/9/2003	12/31/2024
QwikSalt	Compass Minerals	2.54	6/30/2004	12/31/2024
Type C Treated Salt	Broken Arrow	2.94	8/2/2004	12/31/2024
SS-5.0	Shelton's Salt	0.90	9/16/2004	12/31/2024
Bulk Type C Road Salt	Morton Salt	2.63	4/26/2005	12/31/2024
ESSA Salt	ESSA	0.84	6/26/2007	12/31/2024
Rapid Thaw	Broken Arrow	2.49	3/4/2009	12/31/2024
Bulk Deicing Salt	Lyons Salt	0.24	6/24/2013	12/31/2024
Ice Kicker	SaltWorx	3.10	5/12/2017	12/31/2024
Ice Slicer CB	Envirotech Services Inc.	0.59	5/12/2017	12/31/2024
VS Rock Salt	Valley Salt Co	0.17	6/6/2018	12/31/2024
Icebreaker	Willow Creek	0.30	12/15/2020	12/31/2025
Safe-T-Salt	Morton Salt	2.30	2/4/2021	12/31/2026
Snow Slicer	NSC Minerals	1.48	4/2/2021	12/31/2026
SnowSlicer	Lyons Salt Company	1.37	9/16/2022	12/31/2027

CATEGORY 8C-B Fine Gradation, Brining Salt, Insoluble Material less than 1%, and Moisture less than 0.5%.

Product Name	Manufacturer	Date Approved	Expiration
Rocanville Standard	NSC Minerals	3/1/2006	12/31/2024
Rocanville Fine	NSC Minerals	3/1/2006	12/31/2024
Rocanville Standard Road Salt	NSC Minerals	10/6/2006	12/31/2024
Medium Solar Salt	Compass Minerals	8/12/2009	12/31/2024
Mixing Solar Salt	Compass Minerals	8/12/2009	12/31/2024
Intrepid Medium Salt	Intrepid Potash	6/3/2010	12/31/2024
Kiln Dry Medium Salt	Broken Arrow	12/17/2015	12/31/2024

CATEGORY 8C-R, Fine Gradation, Road Salt, Insoluble Material less than 10% and Moisture less than 0.5%.

Product Name	Manufacturer	Date Approved	Expiration
Rocanville Standard	NSC Minerals	3/1/2006	12/31/2024
Vanscoy Standard	NSC Minerals	3/1/2006	12/31/2024
Rocanville Fine	NSC Minerals	3/1/2006	12/31/2024
Rocanville Standard Road Salt	NSC Minerals	10/6/2006	12/31/2024
Medium Solar Salt	Compass Minerals	8/12/2009	12/31/2024
Mixing Solar Salt	Compass Minerals	8/12/2009	12/31/2024
Intrepid Medium Salt	Intrepid Potash	6/3/2010	12/31/2024
Ice Slicer Near Zero	Redmond Minerals	12/3/2010	12/31/2024
Kiln Dry Medium Salt	Broken Arrow	12/17/2015	12/31/2024
Bulk Fine Salt	Hutchinson Salt Co	6/6/2018	12/31/2024

Category 8D, Grade 1 Gradation, Combined Insoluble Material and Moisture Content less than 5.0%

Product Name	Manufacturer	% Moisture	Date Approved	Expiration
[currently no products]				

Category 9 - Corrosion Inhibited Liquid Sodium Chloride

Product Name	Manufacturer	Corrosion Rate % Effectiveness	Concentration	Date Approved	Expiration
Salt Brine + Brine Cl	Cargill	25	23%	8/12/2009	12/31/2024
Brine with Headwaters Inhibitor	Pelican Chemicals	26	22%	11/24/2014	12/31/2024
Brine with Headwaters 10F Inhibitor	Pelican Chemicals	27	22%	11/24/2014	12/31/2024
Ice Bite S	Road Solutions Inc.	15.0	22%	10/21/2014	12/31/2024

Category 10 - Corrosion Inhibited Liquid Sodium Chloride Plus Calcium Chloride

Product Name	Manufacturer	Corrosion Rate % Effectiveness	% Concentration	Date Approved	Expiration
TC Econo*	Tiger Calcium Services	20	20/2 ⁽¹⁾	8/12/2009	12/31/2024
Beet Heet Severe	K-Tech Specialty Coatings	21	15/5 ⁽²⁾	7/13/2011	12/31/2024
ESB	America West	21.0	19/2 ⁽³⁾	4/14/2014	12/31/2024
SO-CAL	Custom Spray Services	28.0	21/2 ⁽⁴⁾	4/14/2014	12/31/2024

- 1 - 20% NaCl and 2% CaCl₂
- 2 - 15.3% NaCl and 5.4% CaCl₂
- 3- 18.8% NaCl and 2.3% CaCl₂
- 4 - 20.8% NaCl and 2.5% CaCl₂

Category 11 - Corrosion Inhibited Liquid Chloride Blended Brines

Product Name	Manufacturer	Corrosion Rate % Effectiveness	% Concentration	Date Approved	Expiration
Road Guard Plus*	Tiger Calcium Services	16	27 ⁽¹⁾	8/12/2009	12/31/2024
Road Guard TC	Tiger Calcium Services	21	32 ⁽²⁾	8/12/2009	12/31/2024
Road Guard XCEL	Tiger Calcium Services	20	33 ⁽³⁾	8/12/2009	12/31/2024
IB 7/93-Thermapoint	Millennium Roads	24	27 ⁽⁴⁾	5/1/2013	12/31/2024
ProMelt MAG Plus INH**	Innovative Surface Solutions	27	28 ⁽⁵⁾	5/3/2023	12/31/2028
ProMelt Ultra 1000 Plus INH**	Innovative Surface Solutions	26	26 ⁽⁶⁾	5/3/2023	12/31/2028

1 - 25% Calcium Chloride and 2% Magnesium Chloride

1 - 27.3% Calcium Chloride and 4.8% Magnesium Chloride

2 - 28.5% Calcium Chloride and 4.7% Magnesium Chloride

4 - 17.8% Calcium Chloride, 5.4% Sodium Chloride, and 3.5% Magnesium Chloride

5 - 21.7 % Magnesium Chloride and 5.9% Calcium Chloride

6 - 20.5 % Magnesium Chloride and 5.6% Calcium Chloride

Those products marked with an asterisk (*) indicates that the stratification can be seen and agitation is required.

Those products marked with a double asterisk (**) indicates that friction testing was not available at the time the product was reviewed and is still required.

Category 12 - Other Acetates [update specs document]

Product Name	Manufacturer	Active Ingredients	Corrosion Rate % Effectiveness	Date Approved	Expiration
CF-7	Cryotech	50% Potassium acetate		6/20/2001	12/31/2024
CMAK	Cryotech	12% Calcium Magnesium Acetate and 25% Potassium Acetate		6/20/2001	12/31/2024
NC 3000	Glacial Technologies	25% Potassium Acetate concentration	-4	3/13/2002	12/31/2024
Alpine Ice-Melt	Nachurs Alpine Sol. Ind.	50% Potassium Acetate	-5	6/23/2008	12/31/2024
Isoway	Omex Environmental	25% Potassium Acetate	-5	4/15/2014	12/31/2024

Category 13 - Liquid Products with Greater than 30% Organics

Product Name	Manufacturer	Sodium Chloride	Corrosion Rate % Effectiveness	Blend Ratio	Date Approved	Expiration
Fusion 60/40	Eco Solutions	15%	22	60% Fusion/40% Salt Brine	11/23/2009	12/31/2024
Geomelt S7	SNI Solutions	18%	26	30% Geomelt 55/ 70% Salt Brine	4/17/2014	12/31/2024
Biomelt AG7	SNI Solutions	18%	26	30% Biomelt AG/ 70% Salt Brine	10/2/2015	12/31/2024
Husker Plus	Smith Fertilizer and Grain	-	10	54% Mixed Matrix Organic/Inorganic Salt Compounds	7/7/2016	12/31/2024
Beet 55+	Smith Fertilizer and Grain	-	13	Ca 11.3%, Na 5.5%, K 3% and < than 2% Mg	2/1/2019	12/31/2024

Category 14 - Liquid Salt Blends

Product Name	Manufacturer	Chloride Concentration				Corrosion Rate %	Date Approved	Expiration
		NaCl	MgCl ₂	CaCl ₂	Total	Effectiveness		
AquaSalina+	Nature's Own Source	11%	2%	9.0%	22.0%	26.4	9/19/2013	12/31/2024
AQ+IceBite Liquid Brine Deicer*	Nature's Own Source	13%		7.4%	20.4%	11.4	8/28/2014	12/31/2024
Ecolution Liquid Deicer	State Industrial Products	13%	2%	9.8%	24.6%	26.5	8/28/2014	12/31/2024
XO-Melt ₂	K-Tech	10%	2%	12.3%	24.5%	22.9	11/3/2014	12/31/2024
BetterBrine Pro powered by AMP	Envirotech Services Inc.	18%	3%		21.6%	26.1	11/18/2016	12/31/2024
* Blended with 15% IceBite								

Experimental Category for Liquid Products (Category L)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	% Concentration	Date Approved	Expiration
ProMelt Ultra 2000 Inh	Innovative Surface Solutions	29.6	24.0 ⁽¹⁾	5/12/2017	12/31/2024

PLEASE REFER TO THE FOLLOWING FOOTNOTES REGARDING SPECIFIC EXPERIMENTAL PRODUCT INFORMATION

1 - 24% Magnesium Chloride

Experimental Category for Solid Products (Category S)

Product Name	Manufacturer	Corrosion Rate % Effectiveness	% Concentration	% Insolubles	% Moisture	Date Approved	Expiration

Clear Roads Qualified Product List - INHIBITORS
Date of Listing: May 5, 2023

Category A1 - Corrosion Inhibitor for Sodium Chloride Brine (Minimum 21% NaCl)

Product Name	Manufacturer	% NaCl		% Additive	Class	% Effectiveness	Date Approved	Expiration
ArctiClear CI Plus	Compass Minerals	21.2		5.0	1	21.3	12/3/2010	12/31/2024
Headwaters Corrosion Inhibitor	Pelican Chemicals	22.5		3.5	1	24.9	4/15/2014	12/31/2024
Shield GLT Plus	Paradigm Chemical	22.6		5.0	1	28.7	4/15/2014	12/31/2024
Headwaters 10F Corrosion Inhibitor	Pelican Chemicals	22.4		4.5	1	26.7	7/18/2014	12/31/2024
GLT-H	Paradigm Group	23.0		8.0	s	26.0	2/1/2019	12/31/2024
Ecoprotecht-NL	Eco-rrosion Technologies	21.7		7.0	1	21.6	1/1/2020	12/31/2024

Category A2 - Corrosion Inhibitor for Sodium Chloride Plus Calcium Chloride Brine (Minimum 15% NaCl & 2% CaCl₂)

Product Name	Manufacturer	% NaCl	% CaCl ₂	% Additive	Type/Class	% Effectiveness	Date Approved	Expiration
Boost SB	America West	18.8	2.3	20	1 / 2	21.0	4/14/2014	12/31/2024

Category A3 - Corrosion Inhibitor for Sodium Chloride Brine (Minimum 15% NaCl)

Product Name	Manufacturer	% NaCl		% Additive	Class	% Effectiveness	Date Approved	Expiration
ArtiClear Gold	Compass Minerals	18.8		15	2	26.6	12/3/2010	12/31/2024
Beet 55 Concentrate	Smith Fertilizer & Grain	17.2		35	2	23.1	9/19/2013	12/31/2024
Geomelt 55	SNI Solutions	18.1		30	2	25.9	4/17/2014	12/31/2024
Biomelt AG	SNI Solutions	18.3		30	2	26.3	10/2/2015	12/31/2024
AMP	Envirotech Services	18.2		20	2	26.1	4/4/2016	12/31/2024
Headwaters HOT	Pelican Chemicals	19.1		19	2	29.5	7/28/2021	12/31/2026

Category A4 - Additive for Liquid Deicing Products and Pre-Wet Materials

This specification is for a liquid additive to brine or for use as a pre-wetting material only. They are not qualified to be used in direct liquid application.

Product Name	Manufacturer	% Effectiveness	Class	Date Approved	Expiration	Footnote
Beet Heet Concentrate	K-Tech	14.8		9/26/2012	12/31/2024	(1)
SOS AP	Envirotech Services Inc.	21		4/18/2014	12/31/2024	(2)
SOS Inhibited	Envirotech Services Inc.	25.3		8/28/2014	12/31/2024	(3)
SOS-C Inhibited	Envirotech Services Inc.	24.7		3/11/1016	12/31/2024	(4)

Green Blast	Cargill	27.8		10/2/2015	12/31/2024	(5)
Magic Minus Zero (Concentrate)	Innovative Surface Solutions	11.8		10/25/2017	12/31/2024	(6)
Magic Minus Zero (Brine Enhancer)	Innovative Surface Solutions	23.1		10/25/2017	12/31/2024	(7)
Beet Heet Concentrate MN***	K-Tech	25.3		5/16/2018	12/31/2024	(8)
ProMelt Ultra 2000 Plus INH**	Innovative Surface Solutions	26		5/3/2023	12/31/2028	(9)

1 - Total Chloride Salt Blend with CaCl₂-11.9%, MgCl₂- 3.4%, KCL-2.7%, NaCl-3.7% . Carbohydrate content-28.8%.

2 - 26.0% MgCl₂ with a thickening additive.

3 - 26.0% MgCl₂ with a thickening additive.

4 - Total Chloride Salt Blend with CaCl₂- 26.9%, MgCl₂- 2.2%

5 - 28.0% Magnesium Chloride with a thickening additive.

6 - 23% Magnesium Chloride. A 80/20 mixture of magnesium chloride with an organic agricultural product. Material resulted in a final pH of 4.1 as accepted by the PNS.

7 - Total Chloride Salt Blend with NaCl - 15.5% and MgCl₂- 7.4%. This is a 70/30 blend of salt brine with the Magic Minus Zero Concentrate. Material resulted in a final pH of 4.5 as accepted by the PNS.

8 - Total Chloride Salt Blend with CaCl₂-15.2%, KCL-2.5%, NaCl-6.1% . Carbohydrate content-26.7%.

9 - % Concentration: 23.4% (18.3 % Magnesium Chloride and 5.1% Calcium Chloride)

Those products marked with a double asterisk (**) indicates that friction testing was not available at the time the product was reviewed and is still required.