



# SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

## 1. PRODUCT IDENTIFICATION

<b>1.1 COMMON NAME:</b>	<b>Polar Vortex™</b>
<b>CHEMICAL NAME:</b>	N/A
<b>CAS#:</b>	Mixture
<b>1.2 PRODUCT USE:</b>	The de-icing of roads, walkways and surfaces
<b>1.3 MANUFACTURER'S NAME:</b>	<b>Vaporizer LLC.</b>
<b>ADDRESS:</b>	PO Box 190, Mt. Morris, NY 14510
<b>BUSINESS PHONE:</b>	1-860-564-7225
<b>WEB SITE:</b>	www.vaporizericemelt.com
<b>1.4 EMERGENCY PHONE NUMBER:</b>	
<b>EMERGENCY PHONE #:</b>	1-860-564-7225
<b>1.5 PREPARATION INFORMATION:</b>	
<b>DATE OF CURRENT REVISION:</b>	May 25, 2023 (Version 2)
<b>DATE OF LAST REVISION:</b>	June 11, 2018 (Version 1)

## 2. HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW:

**Product Description:** This product is a blue or green crystalline solid with no odor.

**Health Hazards:** Exposure to this product may cause irritation to eyes. Prolonged contact may cause skin irritation. May cause respiratory tract irritation.

**Flammability Hazards:** This product is a non-flammable solid.

**Reactivity Hazards:** None known

**Environmental Hazards:** The Environmental effects of this product have not been investigated. Release of this product is not expected to have significant adverse effects in the aquatic environment.

### 2.1 CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 AND the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

#### Component(s) Contributing to Classification(s)

All Components listed in Section 3

### 2.2 LABEL ELEMENTS:

#### GHS Pictograms:



**Signal Word:** WARNING!

#### GHS Hazard Classification(s):

Skin Irritant Category 2

Eye Irritant Category 2A

Specific Target Organ Toxicity – Single Exposure Category 3

#### Hazard Statement(s):

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

#### Prevention Statement(s):

P261: Avoid breathing fume/mist/vapors/spray.

P264: Wash skin after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection.



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## Response Statement(s):

P302+P352: IF ON SKIN: Wash with plenty of water.  
 P321: Specific treatment (See section 4 of this SDS).  
 P332+P313: If skin irritation occurs: Get medical advice/attention.  
 P362+P364: Take off contaminated clothing and wash it before reuse.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313: If eye irritation persists: Get medical advice/attention.  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312: Call a POISON CENTER/doctor if you feel unwell.

## Storage Statement(s):

P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
 P405: Store locked up.

## Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:

**SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of exposure for this product are by inhalation, skin contact, eye contact or ingestion.

### **ACUTE:**

**INHALATION:** Inhalation may be irritating to the respiratory tract.

**CONTACT WITH SKIN:** Repeated or prolonged contact may cause skin irritation.

**EYE CONTACT:** Contact may irritate the eyes, resulting in redness or watering.

**INGESTION:** Ingestion of a large quantity may cause gastrointestinal irritation with nausea and vomiting.

**CHRONIC:** None known

**TARGET ORGANS:** **Acute:** Eyes, Skin, Respiratory System

**Chronic:** None Known

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Index #	GHS Classifications
Sodium Chloride	83.5-99%	7647-14-5	231-598-3	Not Listed	Skin Irritant Cat 2, Eye Irritant Cat 2A, STOT SE Cat 3
Magnesium Chloride Hexahydrate	.5-1.5%	7791-18-6	616-575-1	Not Listed	Eye Irritant Cat 2A
Calcium Chloride	5-10%	10043-52-4	233-140-8	017-013-00-2	Acute Oral Toxicity Cat 4, Eye Irritant Cat 2A
Potassium	1%	7440-09-7	231-119-8	019-001-00-2	Water-React Cat 1, Skin Corr Cat 1
Calcium Magnesium Acetate	0.5-5%	76123-46-1	Not Listed	Not Listed	Skin Irritant Cat 2, Eye Irritant Cat 2A, STOT SE Cat 3

Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).  
 Actual concentrations are withheld as trade secret.

## 4. FIRST-AID MEASURES

### 4.1 DESCRIPTION OF FIRST AID MEASURES:

**EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

**SKIN CONTACT:** If product contacts skin, wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

**INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

**INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known

### 4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Exposure to this product may cause irritation to skin and eyes. Inhalation of dust may cause irritation to respiratory system. May be harmful if swallowed with digestive tract irritation and vomiting.



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**4.3 RECOMMENDATIONS TO PHYSICIANS:** Treat symptoms and eliminate overexposure.

## 5. FIRE-FIGHTING MEASURES

### 5.1 FIRE EXTINGUISHING MATERIALS:

Use fire extinguishing methods below:

Water Spray: Yes	Carbon Dioxide: Yes
Foam: Yes	Dry Chemical: Yes
Halon: Yes	Other: Any "C" Class

### 5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:

None known  
 Explosion Sensitivity to Mechanical Impact: No  
 Explosion Sensitivity to Static Discharge: No

### 5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

See section 8.2 for Exposure Controls.

### 6.2 ENVIRONMENTAL PRECAUTIONS:

No specific hazards connected with leaks and splits.

### 6.3 SPILL AND LEAK RESPONSE:

Sweep up spilled materials and place in appropriate container for disposal or re-use. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

## 7. HANDLING and STORAGE

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

Establish good personal hygiene and work practices. Always wash hands and face before eating, drinking or smoking.

### 7.2 STORAGE AND HANDLING PRACTICES:

Store in a dry area with <75% relative humidity to avoid caking.

### 7.3 SPECIFIC USES:

De-icing roads and walkways.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

### 8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Sodium Chloride	7647-14-5	10 mg/m <sup>3</sup> Total Dust	15 mg/m <sup>3</sup> Total Dust

### 8.2 EXPOSURE CONTROLS:

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.*

**RESPIRATORY PROTECTION:** Not normally required when using this product. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

**EYE PROTECTION** Safety glasses or goggles are recommended to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.



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**HAND PROTECTION:** Protective gloves are recommended to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

**BODY PROTECTION:** Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

## **9. PHYSICAL and CHEMICAL PROPERTIES**

### **9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:**

**APPEARANCE (Physical State) and COLOR:** This product is a blue or green crystalline solid.

**ODOR:** None

**ODOR THRESHOLD:** Not Applicable

**pH:** Not Applicable

**MELTING/FREEZING POINT:** Not Applicable

**BOILING POINT:** >2575°F

**FLASH POINT:** Not Applicable

**EVAPORATION RATE (n-BuAc=1):** Not Available

**FLAMMABILITY (SOLID, GAS):** Not Applicable

**UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS:** Not Applicable

**VAPOR PRESSURE (mm Hg @ 20°C (68°F):** Not Available

**VAPOR DENSITY:** Not Applicable

**RELATIVE DENSITY:** Not Applicable

**DENSITY:** Not Applicable

**SPECIFIC GRAVITY:** Not Available

**SOLUBILITY IN WATER:** Not Available

**WEIGHT PER GALLON:** Not Available

**PARTITION COEFFICIENT (n-octanol/water):** Not Applicable

**AUTO-IGNITION TEMPERATURE:** Not Applicable

**DECOMPOSITION TEMPERATURE:** Not Available

**VISCOSITY:** Not Available

**VOC g/l / Lb/gal:** Not Available

### **9.2 OTHER INFORMATION:**

No additional information available.

## **10. STABILITY and REACTIVITY**

### **10.1 REACTIVITY:**

This product is not reactive.

### **10.2 STABILITY:**

Stable under conditions of normal storage and use.

### **10.3 POSSIBILITY OF HAZARDOUS REACTIONS:**

Chemical reactions occur when this product is involved with strong acids such as sulfuric or nitric acid.

### **10.4 CONDITIONS TO AVOID:**

Incompatible materials.

### **10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:**

Strong acids.

### **10.6 HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition products include hydrochloric acid.

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:**

#### **TOXICITY DATA:**

CAS#: 7647-14-5

Oral, rat: LD50 = 3,000 mg/kg;

**SUSPECTED CANCER AGENT:** None of the ingredients within this product are found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, or suspected to be, cancer-causing agents by these agencies.

**IRRITANCY OF PRODUCT:** This product may be irritating to skin, eyes or respiratory system.



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**SENSITIZATION TO THE PRODUCT:** This product is not considered a respiratory system or skin sensitizer.

**REPRODUCTIVE TOXICITY INFORMATION:** No information concerning the effects of this product and its components on the human reproductive system.

**SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** May cause respiratory irritation.

**SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** None known

**ASPIRATION HAZARD:** None

## **12. ECOLOGICAL INFORMATION**

### **12.1 TOXICITY:**

This material is water soluble and occurs naturally, and is unlikely to have any long term effect on the environment. However, large or frequent applications or spills can have a potentially damaging effect on the environment.

### **12.2 PERSISTENCE AND DEGRADABILITY:**

This material is not organic and therefore does not undergo biodegradation.

### **12.3 BIOACCUMULATIVE POTENTIAL:**

Based on available information, the sodium chloride present may bioaccumulate in some aquatic organisms.

### **12.4 MOBILITY IN SOIL:**

This material is water soluble and is expected to move rapidly with surface water or ground water flows.

### **12.5 RESULTS OF PBT AND vPvB ASSESSMENT:**

No specific data available on this product.

### **12.6 OTHER ADVERSE EFFECTS:**

No specific data available on this product.

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

### **12.7 WATER ENDANGERMENT CLASS:**

Water endangering in accordance with EU Guideline 91/155-EWG. Not determined

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 WASTE TREATMENT METHODS:**

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

### **13.2 EU Waste Code:**

Not determined.

## **14. TRANSPORTATION INFORMATION**

US DOT, IATA, IMO, ADR:

**U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:** This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

**14.1 PROPER SHIPPING NAME:** Non-Regulated Material

**14.2 HAZARD CLASS NUMBER and DESCRIPTION:** None

**14.3 UN IDENTIFICATION NUMBER:** None

**14.4 PACKING GROUP:** None

**14.5 DOT LABEL(S) REQUIRED:** None

**NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER:** None

**RQ QUANTITY:** None

**14.6 MARINE POLLUTANT:** None of the components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

### **14.7 SPECIAL PRECAUTIONS FOR USER:**

Avoid exposure

### **14.8 INTERNATIONAL TRANSPORTION:**

**INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):** This product is not considered as dangerous goods.

**INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):** This product is not considered as dangerous goods.

### **14.9 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND IBC CODE:**

**EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):** This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.



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## 15. REGULATORY INFORMATION

### 15.1 UNITED STATES REGULATIONS:

**U.S. SARA REPORTING REQUIREMENTS:** The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

**U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

**U.S. CERCLA REPORTABLE QUANTITY (RQ):** None

**U.S. TSCA INVENTORY STATUS:** The components of this product are listed on the TSCA Inventory or are exempted from listing.

**OTHER U.S. FEDERAL REGULATIONS:** None

**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** Ingredients within this product are not on the Proposition 65 Lists.

### 15.2 CANADIAN REGULATIONS:

**CANADIAN DSL/NDSL INVENTORY STATUS:** All components are DSL Listed, NDSL Listed and/or are exempt from listing.

**OTHER CANADIAN REGULATIONS:** Not applicable.

**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

**CANADIAN WHMIS CLASSIFICATION and SYMBOLS:** This product has been classified per WHMIS 2015.

### 15.3 EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

See Section 2 for full Details.

### 15.4 AUSTRALIAN INFORMATION FOR PRODUCT:

The components of this product are listed on the International Chemical Inventory list.

### 15.5 JAPANESE INFORMATION FOR PRODUCT:

**JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS:**

The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

**JAPANESE ENCS INVENTORY:**

The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

**POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW:**

No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

### 15.6 INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftliste List of Toxic Substances: Listed

U.S. TSCA: Listed

## 16. OTHER INFORMATION

<b>HMIS Rating (Scale 0-4)</b> Health hazard: 1 Flammability: 0 Physical Hazard: 0	<b>NFPA Rating (Scale 0-4)</b> Health hazard: 1 Flammability: 0 Physical Hazard: 0
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## **Abbreviations and acronyms**

<b>ACGIH</b>	<i>American Conference of Governmental Industrial Hygienists</i>
<b>CFR</b>	<i>Code of Federal Regulations</i>
<b>DOT</b>	<i>Federal Department of Transportation</i>
<b>GHS</b>	<i>The Globally Harmonized System of Classification and Labelling of Chemicals</i>
<b>HMIS</b>	<i>Hazardous Material Identification System</i>
<b>HCS</b>	<i>Hazard Communication Standard</i>
<b>IARC</b>	<i>International Agency for Research on Cancer</i>
<b>IATA</b>	<i>The International Air Transport Association</i>
<b>ICAO</b>	<i>The International Civil Aviation Organization</i>
<b>IMDG</b>	<i>International Maritime Dangerous Goods</i>
<b>IMO</b>	<i>International Maritime Organization</i>
<b>LD50/LC50</b>	<i>Lethal Concentration/Dose, 50 percent</i>
<b>NFPA</b>	<i>National Fire Protection Association</i>
<b>NIOSH</b>	<i>National Institute for Occupational Safety and Health</i>
<b>NTP</b>	<i>National Toxicology Program</i>
<b>OSHA</b>	<i>Occupational Safety and Health</i>
<b>PEL</b>	<i>Permissible Exposure Limit</i>
<b>SARA</b>	<i>Superfund Amendments and Reauthorization Act</i>
<b>TLV</b>	<i>ACGIH Threshold Limit Value</i>
<b>TWA</b>	<i>Time-Weighted Average</i>

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It is the responsibility of the user to comply with all applicable federal, state and local regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

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## **REVISION HISTORY**

June 11, 2018	- Document creation
May 25, 2023	- SDS Review

**END OF SDS SHEET**