



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Diamond Crystal® Solar Naturals™ Salt Crystals

**Other means of identification**

**SDS number** ND19

**Synonyms** Sodium Chloride (Salt).

**Recommended use** Salt may be intended for food or animal feed (agricultural) as well as several industrial applications including deicing and water conditioning.

**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.

## 3. Composition/information on ingredients

#### Mixtures

| Chemical name   | CAS number | %   |
|-----------------|------------|-----|
| Sodium Chloride | 7647-14-5  | 100 |

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.

**Ingestion** 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.  |
| <b>5. Fire-fighting measures</b>  |   |
| <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.   |
| <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.   |
| <b>6. Accidental release measures</b>   |   |
| <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.  |
| <b>7. Handling and storage</b>  |   |
| <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.  |
| <b>8. Exposure controls/personal protection</b>                               |   |
| <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>Other</b>  | Wear suitable protective clothing.  |
| <b>Respiratory protection</b>   | Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. 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. |
| <b>Thermal hazards</b>  | Wear appropriate thermal protective clothing, when necessary.   |
| <b>General hygiene considerations</b>   | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.   |

## 9. Physical and chemical properties

|   |                                |
|---|--------------------------------|
| <b>Appearance</b>                                   | White crystalline solid        |
| <b>Physical state</b>                               | Solid.                         |
| <b>Form</b>   | Crystalline solid.             |
| <b>Color</b>  | White to opaque                |
| <b>Odor</b>   | Halogen odor when heated       |
| <b>Odor threshold</b>                               | Not available.                 |
| <b>pH</b>   | Not available.                 |
| <b>Melting point/freezing point</b>                 | 1473.8 °F (801 °C)             |
| <b>Initial boiling point and boiling range</b>      | 2669 °F (1465 °C) (760 mmHg)   |
| <b>Flash point</b>                                  | Not available.                 |
| <b>Evaporation rate</b>                             | Not available.                 |
| <b>Flammability (solid, gas)</b>                    | Not available.                 |
| <b>Upper/lower flammability or explosive limits</b> |                                |
| <b>Flammability limit - lower (%)</b>               | Not available.                 |
| <b>Flammability limit - upper (%)</b>               | Not available.                 |
| <b>Explosive limit - lower (%)</b>                  | Not available.                 |
| <b>Explosive limit - upper (%)</b>                  | Not available.                 |
| <b>Vapor pressure</b>                               | 2.4 mm Hg (1376.6 °F (747 °C)) |
| <b>Vapor density</b>                                | Not available.                 |
| <b>Relative density</b>                             | 2.16 (H <sub>2</sub> O = 1)    |
| <b>Solubility(ies)</b>                              |                                |
| <b>Solubility (water)</b>                           | 26.4 %                         |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.                 |
| <b>Auto-ignition temperature</b>                    | Not available.                 |
| <b>Decomposition temperature</b>                    | Not available.                 |
| <b>Viscosity</b>                                    | Not available.                 |
| <b>Other information</b>                            |                                |
| <b>Bulk density</b>                                 | 35 - 83 lb/ft <sup>3</sup>     |
| <b>Molecular formula</b>                            | NaCl                           |
| <b>Molecular weight</b>                             | 58.44                          |
| <b>pH in aqueous solution</b>                       | 6 - 9                          |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.                               |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.   |
| <b>Conditions to avoid</b>                | Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). |
| <b>Incompatible materials</b>             | Avoid contact with strong acids. Becomes corrosive to metals when wet.  |
| <b>Hazardous decomposition products</b>   | May evolve chlorine gas when in contact with strong acids.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                   |   |
|-------------------|---|
| <b>Ingestion</b>  | Expected to be a low ingestion hazard.                |
| <b>Inhalation</b> | Inhalation of dusts may cause respiratory irritation. |

**Skin contact** Prolonged or repeated skin contact may cause irritation.

**Eye contact** Dust in the eyes will cause irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. The following effects were observed after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage.

#### Information on toxicological effects

**Acute toxicity** In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

| Components                      | Species | Test Results |
|---------------------------------|---------|--------------|
| Sodium Chloride (CAS 7647-14-5) |         |              |
| <b>Acute</b>                    |         |              |
| <i>Oral</i>                     |         |              |
| LD50                            | Mouse   | 4000 mg/kg   |
|                                 | Rat     | 3000 mg/kg   |
| <i>Other</i>                    |         |              |
| LD50                            | Mouse   | 2602 mg/kg   |

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Dust in the eyes will cause irritation.

#### Respiratory or skin sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Due to the physical form of the product it is not an aspiration hazard.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components                      | Species | Test Results   |                              |
|---------------------------------|---------|--|------------------------------|
| Sodium Chloride (CAS 7647-14-5) |         |  |                              |
| <b>Aquatic</b>                  |         |  |                              |
| Crustacea                       | EC50    | Water flea (Daphnia magna)                           | 340.7 - 469.2 mg/l, 48 hours |
| Fish                            | LC50    | Rainbow trout, donaldson trout (Oncorhynchus mykiss) | 4747 - 7824 mg/l, 96 hours   |

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** None known.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

|  |  |
|--|--|
| <b>Local disposal regulations</b>            | Dispose in accordance with all applicable regulations.   |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>                | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.       |

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Not regulated.

#### US. New Jersey Worker and Community Right-to-Know Act

Not listed.

#### US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**International Inventories**

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia                   | Australian Inventory of Chemical Substances (AICS)                     | Yes                    |
| Canada                      | Domestic Substances List (DSL)   | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea                       | Existing Chemicals List (ECL)  | Yes                    |
| New Zealand                 | New Zealand Inventory  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

|                      |  |
|----------------------|--|
| <b>Issue date</b>    | 12-August-2014   |
| <b>Revision date</b> | -  |
| <b>Version #</b>     | 01   |
| <b>HMIS® ratings</b> | Health: 1<br>Flammability: 0<br>Physical hazard: 0<br>Personal protection: A   |
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