

## Safety Data Sheet

**MORTON SALT, INC.**

A K+S Group Company

### Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

#### 1.1 Product identifier

Product Name	• Rust Remover Pellet; Rust Remover Water Softening Pellet; Rust Rout Brine Block Salt with Rust Remover
Synonyms	• Rust Remover Pellets; Rust Remover Super Pellens
CAS Number	• 7647-14-5
SDS Number/Grade	• 1470
EC Number	• 231-598-3
Molecular Formula	• :Na 1:Cl 1:

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s)	• Water conditioner ion exchange resin regeneration
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#### 1.3 Details of the supplier of the safety data sheet

Manufacturer	• Morton Salt, Inc. 123 N. Wacker Drive Chicago, IL 60606 United States  saltinfo@mortonsalt.com
Telephone (General)	• 312-807-2000

#### 1.4 Emergency telephone number

Manufacturer	• 312-807-2000
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### Section 2: Hazards Identification

#### EU/EEC

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]  
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

#### 2.1 Classification of the substance or mixture

CLP	• Not classified Classification criteria not met
DSD/DPD	• Not classified Classification criteria not met

#### 2.2 Label Elements

CLP	
Hazard statements	• No label element(s) specifically required
DSD/DPD	
Risk phrases	• No label element(s) specifically required

## 2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.
- DSD/DPD**
- According to European Directive 1999/45/EC this preparation is not considered dangerous.

## United States (US)

According to OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Not classified  
Classification criteria not met

### 2.2 Label elements

- OSHA HCS 2012**
- Hazard statements**
- No label element(s) specifically required

### 2.3 Other hazards

- OSHA HCS 2012**
- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

## Canada

According to WHMIS

### 2.1 Classification of the substance or mixture

- WHMIS**
- Not classified  
Classification criteria not met

### 2.2 Label elements

- WHMIS**
- No label element(s) specifically required

### 2.3 Other hazards

- WHMIS**
- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

### 3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
				EU DSD/DPD: Not Classified -	

Sodium chloride	CAS:7647-14-5 EC Number:231-598-3	> 99%	Ingestion/Oral-Rat LD50 • 3000 mg/kg	Criteria not met EU CLP: Not Classified - Criteria not met OSHA HCS 2012: Not Classified - Criteria not met	May contain small quantities of naturally occurring calcium and magnesium salts
Citric acid	CAS:77-92-9 EC Number:201-069-1	0.35%	Ingestion/Oral-Rat LD50 • 11700 mg/kg	EU DSD/DPD: Self Classified- Xi R36 EU CLP: Self Classified- Eye Irrit. 2, H319 OSHA HCS 2012: Eye Irrit. 2A	NDA

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

#### Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

#### Skin

- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

#### Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

#### Ingestion

- If large quantities are swallowed, call a physician immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

**Suitable Extinguishing Media** • Material is non-combustible. In case of fire use media as appropriate for surrounding fire.

**Unsuitable Extinguishing Media** • No data available.

### 5.2 Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards** • No unusual fire or explosion hazards known.

**Hazardous Combustion Products** • No data available

### 5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

## Section 6 - Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**Personal Precautions** • Wear suitable protective clothing, gloves, and eye/face protection.

**Emergency Procedures** • Stop leak if you can do it without risk. Keep unauthorized personnel away. Use normal

clean up procedures.

## 6.2 Environmental precautions

- None expected to be necessary if material is used under ordinary conditions and as recommended.

## 6.3 Methods and material for containment and cleaning up

### Containment/Clean-up Measures

- Carefully shovel or sweep up spilled material and place in suitable container.

## 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

#### Handling

- Use good safety and industrial hygiene practices. Wash thoroughly after handling. Keep out of reach of children.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

- Avoid storage with strong acids and strong oxidizing agents. Store in a dry place.

#### Incompatible Materials or Ignition Sources

- Strong oxidizing agents, strong acids.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

#### Exposure Limits/Guidelines

- No applicable exposure limits available for product or components.

### 8.2 Exposure controls

#### Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

#### Personal Protective Equipment

##### Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

##### Eye/Face

- Wear safety glasses.

##### Skin/Body

- Wear appropriate gloves.

#### General Industrial Hygiene Considerations

- Do not get in eyes or on skin or clothing. Handle in accordance with good industrial hygiene and safety practice.

#### Environmental Exposure Controls

- Follow best practice for site management and disposal of waste.

## Section 9 - Physical and Chemical Properties

### 9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White pellet or block.
Color	White	Odor	Odorless
Particulate Type	Dust Crystalline	Odor Threshold	Data lacking

**General Properties**

Boiling Point	1461 C(2661.8 F) Sodium Chloride	Melting Point	801 C(1473.8 F) Sodium Chloride
Decomposition Temperature	Data lacking	pH	2.5 to 3
Specific Gravity/Relative Density	2.165 Water=1	Water Solubility	Soluble 0.36 g/cc @ 20 C(68 F)
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant.		

**Volatility**

Vapor Pressure	1 mmHg (torr) @ 865 C(1589 F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		

**Flammability**

Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		

**Environmental**

Octanol/Water Partition coefficient	Data lacking		
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**9.2 Other Information**

- No additional physical and chemical parameters noted.

**Section 10: Stability and Reactivity****10.1 Reactivity**

- No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

- Stable

**10.3 Possibility of hazardous reactions**

- Hazardous polymerization will not occur.

**10.4 Conditions to avoid**

- Incompatible materials.

**10.5 Incompatible materials**

- Strong oxidizing agents, strong acids. For citric acid, avoid metal nitrates, strong bases and oxidizers.

**10.6 Hazardous decomposition products**

- Will react with strong acids to generate hydrogen chloride and with strong oxidizing agents to generate chlorine gas. Aqueous solutions of citric acid will corrode reactive metals (iron, zinc and aluminum) and their alloys, and may generate hydrogen, which could form explosive mixtures.

**Section 11 - Toxicological Information****11.1 Information on toxicological effects**

Component Name	CAS	Data
Citric acid (0.35%)	77-92-9	<b>Acute Toxicity:</b> orl-rat LD50:3 gm/kg; <b>Irritation:</b> eye-rbt 750 ug/24H SEV; skn-rbt 500 mg/24H MLD

**GHS Properties****Classification**

<b>Acute toxicity</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Aspiration Hazard</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Carcinogenicity</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Skin corrosion/Irritation</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Skin sensitization</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>STOT-RE</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>STOT-SE</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Toxicity for Reproduction</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Respiratory sensitization</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met
<b>Serious eye damage/Irritation</b>	<b>EU/CLP</b> • Classification criteria not met <b>OSHA HCS 2012</b> • Classification criteria not met

## Potential Health Effects

### Inhalation

#### Acute (Immediate)

- Under normal conditions of use, no health effects are expected. Inhalation of dust may cause mild irritation to mucous membranes, nose and throat. Symptoms may include coughing, dryness and sore throat.

#### Chronic (Delayed)

- No data available.

### Skin

#### Acute (Immediate)

- Under normal conditions of use, no health effects are expected.

#### Chronic (Delayed)

- No data available.

### Eye

#### Acute (Immediate)

- Based upon practical use and experience using this product eye irritation is not expected to occur.

#### Chronic (Delayed)

- No data available.

### Ingestion

#### Acute (Immediate)

- Ingestion may cause the following symptoms - diarrhea.

#### Chronic (Delayed)

- No data available.

#### Key to abbreviations

LD = Lethal Dose

MLD = Mild

SEV = Severe

## Section 12 - Ecological Information

## 12.1 Toxicity

- Material data lacking.

## 12.2 Persistence and degradability

- Material data lacking.

## 12.3 Bioaccumulative potential

- Material data lacking.

## 12.4 Mobility in Soil

- Material data lacking.

## 12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

## 12.6 Other adverse effects

- No studies have been found.

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

#### Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not regulated	NDA	NDA	NDA
TDG	NDA	Not regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not regulated	NDA	NDA	NDA

#### 14.6 Special precautions for user

- None known.

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### SARA Hazard Classifications

- None

State Right To Know				
Component	CAS	MA	NJ	PA
Sodium chloride	7647-14-5	No	No	No

Citric acid	77-92-9	No	No	No
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Inventory						
Component	CAS	China	EU EINECS	EU ELNICS	Japan ENCS	Korea KECL
Sodium chloride	7647-14-5	Yes	Yes	No	Yes	Yes
Citric acid	77-92-9	Yes	Yes	No	Yes	Yes
Inventory (Con't.)						
Component	CAS		TSCA			
Sodium chloride	7647-14-5		Yes			
Citric acid	77-92-9		Yes			

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

- Citric acid 77-92-9 E (including 40%)
- Sodium chloride 7647-14-5 Uncontrolled product according to WHMIS classification criteria

#### Canada - WHMIS - Ingredient Disclosure List

- Citric acid 77-92-9 1 %
- Sodium chloride 7647-14-5 Not Listed

## Europe

### Other

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

## Mexico

### Other

#### Mexico - Hazard Classifications

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### Mexico - Regulated Substances

- Citric acid 77-92-9 Not Listed



- Sodium chloride 7647-14-5 Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

### Environment

#### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

## United States - California

### Environment

#### U.S. - California - Proposition 65 - Carcinogens List

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - California - Proposition 65 - Developmental Toxicity

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

#### U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Citric acid 77-92-9 Not Listed

- Sodium chloride 7647-14-5 Not Listed

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Male**

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

## United States - Pennsylvania

**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

**U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances**

- Citric acid 77-92-9 Not Listed
- Sodium chloride 7647-14-5 Not Listed

## 15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

## Section 16 - Other Information

**Last Revision Date**

- 15/July/2013

**Preparation Date**

- 4/Jan/2010

**Disclaimer/Statement of Liability**

- The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations. Nothing contained herein is to be construed as a recommendation for use in violation of any patents or of applicable laws or regulations.

**Key to abbreviations**

NDA = No data available