

SAFETY DATA SHEET

Issue Date 28-Jun-2002

Revision Date 16-Sep-2015

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Code 13826
Product Name Crystal

Other means of identification

Recommended use of the chemical and restrictions on use

Use only for the purpose on the product label.

Details of the supplier of the safety data sheet

Manufacturer / Manufactured For

Ross Chemical Systems, Inc.
PO Box 523
Altoona, IA 50009
Phone: (515) 244-1788

Emergency telephone number

24 Hour Emergency Phone Number 1-800-535-5053

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed
Harmful if inhaled
Causes severe skin burns and eye damage
May cause respiratory irritation
Harmful to aquatic life with long lasting effects



Appearance White

Physical state Powder

Odor No Information available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only

outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Precautionary Statements - Response

Specific Treatment (See Section 4 on the SDS).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If irritation persists, see a physician.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If irritation persists, see a physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink plenty of water. See a physician immediately.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Store in a cool, dry place away from strong acids. Keep locked up and out of the reach of children.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium Tripolyphosphate	7758-29-4	15-40	*
Sodium Carbonate	497-19-8	15-40	*
Sodium Metasilicate	6834-92-0	15-40	*
Sodium Polyacrylate	9003-04-7	1-5	*
Alcohols, C6-10, ethoxylated propoxylated	68987-81-5	1-5	*
Sodium Dichloroisocyanurate, Dihydrate	51580-86-0	.1-1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, see a physician.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Immediate medical attention is required.

Inhalation

If dust is formed or irritation occurs, leave area and do not return until dust has settled. If irritation persists, see a physician. Give oxygen or artificial respiration as needed.

Ingestion

Rinse mouth. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

The product causes irritation of eyes, skin and mucous membranes.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental precautions**Environmental precautions**

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Avoid creating dust. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children.

Incompatible materials

Strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear chemical resistant gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators or air purifying respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using do not eat, drink or smoke. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Take off all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Powder
Appearance White
Odor No Information available
Odor threshold No Information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	12.0 - 13.0	1% solution
Specific Gravity	N/A	
Viscosity	No Information available	
Melting point/freezing point	No Information available	
Boiling point / boiling range	N/A	
Flash point	N/A	
Evaporation rate	N/A	
Flammability (solid, gas)	No Information available	
Upper flammability limit:	N/K	
Lower flammability limit:	N/K	
Vapor pressure	N/A	
Vapor density	N/A	
Water solubility	N/A	
Partition Coefficient (n-octanol/water)	No Information available	
Autoignition temperature	No Information available	
Decomposition temperature	No Information available	

Other Information

Density Lbs/Gal No Information available
VOC Content (%) No Information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Avoid moisture. Elevated temperature.

Incompatible materials

Strong acids.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	Causes burns.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin Contact	The product causes burns of eyes, skin and mucous membranes.
Ingestion	Causes burns. Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Tripolyphosphate 7758-29-4	= 3120 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	-
Sodium Carbonate 497-19-8	= 4090 mg/kg (Rat)	-	= 2300 mg/m ³ (Rat) 2 h
Sodium Metasilicate 6834-92-0	= 1153 mg/kg (Rat)	-	-
Sodium Polyacrylate 9003-04-7	> 40 g/kg (Rat)	-	-
Alcohols, C6-10, ethoxylated propoxylated 68987-81-5	= 2745 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 50 mg/L (Rat) 4 h
Sodium Dichloroisocyanurate, Dihydrate 51580-86-0	= 735 mg/kg (Rat)	= 2100 mg/kg (Rat)	60 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity	Causes burns. Extremely corrosive and destructive to tissue. Risk of serious damage to eyes.
Sensitization	No Information available.
Germ cell mutagenicity	No Information available.
Carcinogenicity	No Information available.
Reproductive toxicity	No Information available.
STOT - single exposure	No Information available.
STOT - repeated exposure	No Information available.
Chronic toxicity	Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.
Aspiration hazard	No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity.
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION**Ecotoxicity**

38.3% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Tripolyphosphate 7758-29-4	-	1650: 48 h Leuciscus idus mg/L LC50	-
Sodium Carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static	265: 48 h Daphnia magna mg/L EC50
Sodium Metasilicate 6834-92-0	-	210: 96 h Brachydanio rerio mg/L LC50 210: 96 h Brachydanio rerio mg/L LC50 semi-static	216: 96 h Daphnia magna mg/L EC50

Persistence and degradability

No Information available.

Bioaccumulation

No Information available.

Other adverse effects

No Information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Sodium Carbonate 497-19-8	Corrosive

14. TRANSPORT INFORMATION

The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under 49 CFR, IATA and IMDG to assure regulatory compliance.

DOT

Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Complies
IECSC	Complies

KECL Does not comply
 PICCS Does not comply
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory.
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List.
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances.
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium Dichloroisocyanurate, Dihydrate 51580-86-0	-	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

HMIS Health hazards 3 Flammability 0 Physical hazards 0 Personal protection X

Legend

N/A - Not Applicable
N/E - Not Established
N/D - Not Determined
N/K - Not Known

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Revision Note

No Information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet