

HAEMO-SOL, INC.[®]
The Original "Hospital Specified" Cleaner
MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE

Product Name: Haemo-Sol Enzyme Active

Product Code: 026-055

Product Use: Enzymatic Cleaner and Pre-Soak

Manufacturer:

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2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS: May cause irritation to eyes, skin, and respiratory tract.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Eye Contact: May cause irritation and redness. Contact of Sodium Carbonate may be corrosive to eyes and cause conjunctival edema and corneal destruction.

Skin: Prolonged contact may irritate skin and cause redness to occur.

Inhalation: May irritate the upper respiratory tract and mucus membranes. Urea may be absorbed into the bloodstream with symptoms similar to ingestion.

Ingestion: May cause discomfort/diarrhea or stomach distress.

Chronic Exposure: A study of 67 workers in an environment with high airborne concentrations of urea found a high incidence of protein metabolism disturbances, moderate emphysema, and chronic weight loss.

Aggravation of Pre-existing Conditions: Supersensitive individuals with skin or eye problems, kidney impairment or asthmatic condition should have physician's approval before exposure to urea dust.

SIGNS AND SYMPTOMS OF EXPOSURE:

Eye Contact: Burning, irritation, pain, and redness of eyes. Risk of serious injury from Sodium Carbonate increases if eyes are kept tightly closed and other symptoms may appear from absorption of into the bloodstream via the eyes.

Skin Contact: Irritation may include redness, itching and pain.

Inhalation: Sneezing, coughing, shortness of breath.

Ingestion: Burning or irritation to mouth and esophagus, stomach pain or discomfort. Urea may also cause headache, confusion, and electrolyte depletion.

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3. COMPOSITION AND INGREDIENTS

CHEMICAL NAME	CAS #:	WT/WT %	EINECS #	R Phrases
Sodium Tripolyphosphate	7758-29-4	30-60	231-838-7	NE
Sodium Carbonate	497-19-8	15-40	207-838-8	R36
Urea	57-13-6	7-13	200-315-5	NE
Surfactant	NA	1-5	NE	NE
Nonylphenol Polyethylene Glycol Ether	NA	1-5	NE	NE

4. FIRST AID INFORMATION

EYE CONTACT: Flush with copious amounts of tap water for 15 minutes; seek medical attention.

SKIN CONTACT: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

INHALATION: Remove to fresh air. If having difficulty breathing, contact emergency personnel immediately.

INGESTION: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

NOTES TO MEDICAL DOCTOR:

This product contains sodium carbonate. While no adverse complications are expected, consider endoscopy in all suspected cases of poisoning. Perform blood analysis to determine if dehydration, acidosis, or other electrolyte imbalances occurred.

5. FIRE-FIGHTING MEASURES

FLASH POINT (METHOD USED): N/A **EXPLOSIVE LIMITS:** LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: Water spray, dry chemical, alcohol foam, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Use self contained breathing apparatus and protective equipment.

FIRE / EXPLOSION HAZARDS: None

SENSITIVITY TO IMPACT: None

SENSITIVITY TO STATIC DISCHARGE: None

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8

Environmental Precautions: None

Clean-up Procedures: Pick up and place in a suitable container for reclamation or disposal. Do not let this chemical enter the environment.

7. HANDLING AND STORAGE

Handling Requirements: Keep out of reach of children. Do not get in eyes, on skin, or on clothing.

Storage Conditions: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

Suitable Packaging: Plastics, stainless steel

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Federal guidelines treat the ingredient(s) in this product as a nuisance dust, as no product-specific guidelines have been issued for exposure.

Particulates Not Otherwise Regulated:

OSHA (PEL/TWA): 15 mg/m³ (total dust); 5 mg/m³ (resp fraction)

Engineering Controls: Provide local exhaust ventilation.

Respiratory Protection: None required for expected product use.

Hand/Skin Protection: Protective gloves and body-covering clothing recommended.

Eye Protection: Safety glasses recommended. Have eye-wash facilities immediately available.

General Hygiene Considerations: Wash hands thoroughly after handling. Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A

Vapor Pressure (mmHg): N/A

Vapor Density (Air-1): N/A

Order Threshold: N/A

Coefficient of Water/Oil Distribution: N/A

Scooped Density: N/A

Appearance and Odor: White, free flowing powder and granules. No significant odor.

Specific Gravity (H₂O=1): N/A

Percent Volatile by Volume (%): N/A

Evaporation Rate (nBuOAc-1): N/A

Freezing Point: N/A

pH (1% solution): 10.0 ±0.5

Solubility in Water: Appreciable

Reserve Alkalinity: N/D

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10. STABILITY AND REACTIVITY

Stability: This product is stable under ordinary use and storage conditions.

Incompatibility (Materials to Avoid):

Avoid oxidizing agents and acids. Avoid contact with bare aluminum. Flammable hydrogen gas may be produced in contact with bare aluminum. Sodium Carbonate reacts with Fluorine, aluminum, phosphorous pentoxide, sulfuric acid, zinc, lithium, moisture, calcium hydroxide and 2,4,6-trinitrotoluene, and reacts violently with acids to form carbon dioxide. Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride. It is incompatible with sodium nitrite, gallium perchlorate, strong oxidizing agents (permanganate, dichromate, nitrate, chlorine), phosphorus pentachloride, nitrosyl perchlorate, titanium tetrachloride and chromyl chloride.

Hazardous Decomposition/By Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition. Urea decomposes upon heating and can form products including ammonia, oxides of nitrogen, cyanuric acid, cyanic acid, biuret, carbon dioxide.

Hazardous Polymerization: Will not occur

Conditions to Avoid: Avoid heat, flames, ignition sources and incompatibles.

Other Recommendations: Read and follow all directions for use.

11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS

Eye Effects:	For Sodium Carbonate: rabbit: 50 mg severe
Skin Effects:	For Tripolyphosphate: Rabbit: 500 mg/24H Moderate
Dermal LD50:	For Tripolyphosphate: Skin, rabbit: >4640 mg/kg
Oral LD50:	For Tripolyphosphate: Rat: 3120 mg/kg For Sodium Carbonate: Rat: 4090 mg/kg For Urea: Rat: 8471 mg/kg
Inhalation LC50:	For Sodium Carbonate: Rat: 2300 mg/m ³ /2H
Sensitization:	No data available for the product.

CHRONIC EFFECTS

Carcinogenicity:	None of the components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.
Mutagenicity:	Sodium Carbonate and Urea have been investigated as a mutagen. Urea has also been investigated as a tumorigen.
Reproductive Effects:	Sodium Carbonate and Urea have been investigated as a reproductive effector.
Developmental Effects:	No data available for the product.

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12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

For Sodium Carbonate: 96 Hr LC50 *Lepomis macrochirus*: 300 mg/L [static]
48 Hr EC50 *Daphnia magna*: 265 mg/L

Mobility: No data available for the product.

Persistence and Degradability: No data available for the product.

Bioaccumulative Potential: No data available for the product.

Other Adverse Effects: No data available for the product.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

DOT GROUND TRANSPORT

PROPER SHIPPING NAME:	Not regulated.
TECHNICAL NAME:	NA
HAZARD CLASS:	NA
UN/NA NUMBER:	NA
PACKING GROUP:	NA
MARINE POLLUTANT:	No

15. REGULATORY INFORMATION

UNITED STATES

29CFR 1910.1200 (OSHA): None of the chemicals in this product are considered highly hazardous by OSHA.

SARA SECTION 302 (40 CFR 355, APPENDIX A): Not listed

SECTION 311/312 HAZARD CATEGORIES (40 CFR 370): Immediate (Acute) and Chronic Health Hazard

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): Not listed

CERCLA REPORTABLE QUANTITIES (RQ) (40 CFR 302.4): Tripolyphosphate: 5000lbs (Sodium Phosphate, Tribasic)

TSCA INVENTORY STATUS (40 CFR 710): Listed or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CALIFORNIA PROPOSITION 65: Nonylphenol Polyethylene Glycol Ether contained in this product has trace quantities of ethylene oxide and 1,4-Dioxane which are chemicals currently listed as carcinogens and/or reproductive toxins under California Proposition 65.

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15. REGULATORY INFORMATION CONTINUED

CANADA

WHMIS Hazard Classification/Division: D2B, E

Domestic Substance List: Listed or exempt from listing.

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

EINECS INVENTORY STATUS: Listed or exempt from listing.

HAZARD AND RISK PHRASE DESCRIPTIONS:

Hazard Symbols: Xi (Irritant)

Risk Phrases: R36 - Irritating to eyes.

Safety Phrases: S2 -Keep out of the reach of children. S22-Do not breathe dust. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.,

16. OTHER INFORMATION

NFPA Hazard Rating:	Health: 2	4=EXTREME
	Flammability: 0	3=HIGH
	Reactivity: 1	2=MODERATE
		1=SLIGHT

REVISION SUMMARY: This MSDS replace Rev 2 issued in 5/1/08. The format has been updated for compliance with various regulatory bodies. Data changes/additions are noted in the following Sections: 1-4, 7, 8, 10, 11-16.

The information herein is given in good faith and is compiled from Material Safety Data Sheets furnished by our suppliers. No warranty, express or implied, is made or intended. Any use of this information must be determined by the user to be in accordance with applicable Federal, State, and local laws and regulations.