

MATERIAL SAFETY DATA SHEET

MSDS 0264

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	Steamaster Tablets	HMIS CODES	Health 2
		Flammability	0
		Reactivity	1
PRODUCT CODES	68732	PPI	B
CHEMICAL FAMILY	Organic/Inorganic		
USE	Boiler Water Treatment		
MANUFACTURER'S NAME	The RectorSeal Corporation	EMERGENCY TELEPHONE NO.	Chemtrec 24 Hours
	2601 Spenwick Drive		(800) 424-9300
	Houston, Texas 77055 USA		
DATE OF PREPARATION	October 3, 2002	TECHNICAL SERVICE TELEPHONE NO.	(800) 231-3345

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS
44.04	7632-00-0	Sodium Nitrite	
		ACGIH TLV	N/D
		OSHA PEL	N/D
23.52	7758-29-4	Sodium Triphosphate	
		ACGIH TLV	N/D
		OSHA PEL	N/D
1.34	6834-92-0	Sodium Metasilicate	
		ACGIH TLV	N/D
		OSHA PEL	N/D
3.36	77-92-9	Citric Acid	
		ACGIH TLV	N/D
		OSHA PEL	N/D

Section 3 -- HAZARDS IDENTIFICATION

SUMMARY OF ACUTE HAZARDS

Harmful if swallowed, inhaled or absorbed through skin. Causes irritation to skin, eyes and respiratory tract.

ROUTE OF EXPOSURE, SIGNS AND SYMPTOMS

INHALATION

Toxic. Causes irritation to the respiratory tract and systemic poisoning with symptoms paralleling ingestion.

EYE CONTACT

May cause irritation, redness and pain.

SKIN CONTACT

Causes irritation, redness and pain. May be absorbed through the skin causing systemic poisoning; symptoms may parallel ingestion.

INGESTION

Toxic. Can irritate the mouth, esophagus, stomach, etc. Excessive amounts affect the blood and blood vessels. Signs and symptoms of nitrite poisoning include intense cyanosis, nausea, dizziness, vomiting, collapse, spasms of

abdominal pain, rapid heart beat, irregular breathing, coma, convulsions, and death due to circulatory collapse. Estimated lethal dose 1 to 2 grams.

SUMMARY OF CHRONIC HAZARDS

Repeated exposure through any route may cause symptoms similar to acute toxicity.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Individuals with pre-existing or chronic diseases of the eyes, skin and respiratory system may have increased susceptibility to excessive exposure.

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Section 4 -- FIRST AID MEASURES  
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If INHALED: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on SKIN: Immediately wash with soap and water. Remove and wash any contaminated clothing.

If in EYES: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

If SWALLOWED: If swallowed, call a physician or poison control immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

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Section 5 -- FIRE FIGHTING MEASURES  
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FLASH POINT	LEL	UEL
None	N/D	N/D

Note: Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases the flammability of any combustible material.

EXTINGUISHING MEDIA

Non-combustible. Use agents appropriate for surrounding fires.

SPECIAL FIRE FIGHTING PROCEDURES: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Decomposition of sodium nitrite may leave a caustic residue.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contact with oxidizable substances may cause extremely violent combustion. May explode when heated to 537 C (1000 F) or on severe impact or on contact with cyanides, ammonium salts, cellulose, lithium, potassium plus ammonia, and sodium thiosulfate.

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Section 6 -- ACCIDENTAL RELEASE MEASURES  
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up excess material to prevent footing hazard. Discard in trash.

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Section 7 -- HANDLING AND STORAGE  
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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be

hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.  
OTHER PRECAUTIONS: Avoid prolonged or repeated contact with skin or clothing.

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Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION  
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RESPIRATORY PROTECTION (SPECIFY TYPE): Normally none required. Use NIOSH/MSHA approved particulate respirator for nuisance dust.  
VENTILATION - LOCAL EXHAUST: Acceptable  
SPECIAL: N/A  
MECHANICAL (GENERAL): Acceptable  
OTHER: N/A  
PROTECTIVE GLOVES: Wear rubber gloves.  
EYE PROTECTION: Safety glasses (ANSI Z-87.1 or equivalent)  
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.  
WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

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Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES  
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BOILING POINT: N/A  
SPECIFIC GRAVITY (H2O = 1): Solid  
VAPOR PRESSURE (mm Hg): N/A  
MELTING POINT: N/D  
VAPOR DENSITY (AIR = 1): N/A  
EVAPORATION RATE (ETHYL ACETATE = 1): N/A  
APPEARANCE/ODOR: Tablets / No distinct odor  
SOLUBILITY IN WATER: Soluble

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Section 10 -- STABILITY AND REACTIVITY  
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STABILITY: This material is stable in closed containers at room temperature. Material slowly oxidizes to sodium nitrate when exposed to air. Very hygroscopic.  
CONDITIONS TO AVOID: Heat, flame, ignition sources, shock, friction, incompatibles.  
INCOMPATIBILITY (MATERIALS TO AVOID): Reacts vigorously with reducing materials and is incompatible with many substances including ammonium salts, cellulose, cyanides, lithium, potassium plus ammonia, sodium thiosulfate, aminoguanide salts, butadiene, phthalic acid, phthalic anhydride, reductants, sodium amide, sodium disulphite, sodium thiocyanate, urea, wood and organic matter.  
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen.  
HAZARDOUS POLYMERIZATION: Will not occur.

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Section 11 -- TOXICOLOGY INFORMATION  
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CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

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TOXICOLOGY DATA  
Ingredient Name

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Sodium Nitrite  
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Oral-Rat LD50:85 mg/kg  
 Inhalation-Rat LC50:5500 mg/m3  
 Sodium Triphosphate  
 Oral-Rat LD50:6500 mg/kg  
 Inhalation-Rat LCLo:N/D  
 Sodium Metasilicate  
 Oral-Rat LD50:2000-3000 mg/kg  
 Inhalation-Rat LCLo:N/D  
 Citric Acid  
 Oral-Rat LD50:3 g/kg  
 Inhalation-Rat LCLo:N/D

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 Section 12 -- Ecological Information  
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 ECOLOGICAL DATA

Ingredient Name  
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Sodium Nitrite	Food Chain Concentration Potential	None
	WATERFOWL TOXICITY	N/A
	BOD	None
	AQUATIC TOXICITY	17.1 ppm/24 hr/minnow
Sodium Triphosphate	Food Chain Concentration Potential	N/D
	WATERFOWL TOXICITY	N/D
	BOD	N/D
	AQUATIC TOXICITY	N/D
Sodium Metasilicate	Food Chain Concentration Potential	None
	WATERFOWL TOXICITY	N/A
	BOD	None
	AQUATIC TOXICITY	2320 ppm/96 hr/mosquito fish/TLm
Citric Acid	Food Chain Concentration Potential	None
	WATERFOWL TOXICITY	N/A
	BOD	40%
	AQUATIC TOXICITY	894 ppm/4 hr/goldfish

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 Section 13 -- DISPOSAL CONSIDERATIONS  
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Waste Classification: Non-regulated solid waste  
 Disposal Method: Whatever cannot be saved for recovery or recycling  
 should be handled as hazardous waste and sent to a RCRA approved waste  
 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.

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 Section 14 -- TRANSPORTATION INFORMATION  
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DOT: Oxidizing substances, solid, n.o.s.,(Sodium Nitrite), Class 5.1, UN1479,  
 PGIII, LTD QTY, ERG#140  
 OCEAN (IMDG): Oxidizing substances, solid, n.o.s.,(Sodium Nitrite),Class  
 5.1,  
 UN1479, PGIII, LTD QTY, IMDG#5163, EmS#5.1-11, MFAG#7560  
 AIR (IATA): Oxidizing substances, solid, n.o.s.,(Sodium Nitrite), Class  
 5.1, UN1479, PGIII, LTD QTY, ERG#140

WHMIS (CANADA): Class C

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Section 15 -- REGULATORY INFORMATION  
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REGULATORY DATA  
Ingredient Name

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Sodium Nitrite  
SARA 313 Yes  
TSCA Inventory Yes  
CERCLA RQ 100 lb.  
RCRA Code N/A  
Sodium Triphosphate  
SARA 313 No  
TSCA Inventory Yes  
CERCLA RQ N/A  
RCRA Code N/A  
Sodium Metasilicate  
SARA 313 No  
TSCA Inventory Yes  
CERCLA RQ N/A  
RCRA Code N/A  
Citric Acid  
SARA 313 No  
TSCA Inventory Yes  
CERCLA RQ N/A  
RCRA Code N/A

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Section 16 -- OTHER INFORMATION  
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This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, expressed or implied is made. Consult RectorSeal for further information: (713) 263-8001