

MATERIAL SAFETY DATA SHEET

Date-Issued: 08-05-2004

Steam Dragon

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Steam Dragon

GENERAL USE: For professional drycleaning and laundry boiler use only.

PRODUCT DESCRIPTION: Boiler Water Conditioner

PRODUCT CODE: SDG-US

MANUFACTURER

R. R. Street & Co. Inc.

184 Shuman Boulevard

Naperville, IL 60563, USA

Product Stewardship: 800-323-7206 (USA & Canada only) or 630-416-4244

24 HR. EMERGENCY TELEPHONE NUMBERS

Medical Emergency: 866-303-6947 (USA & Canada only) or 651-632-9272

Transportation Emergency: 800-424-9300 (USA & Canada only) or 703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

The specific identities of one or more components of this product are withheld as trade secrets.

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Potassium hydroxide	< 10	1310-58-3
(trade secret #1)	-	-
(trade secret #2)	-	-
(trade secret #3)	-	-

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause swelling, burns, blurred vision.

SKIN: May cause swelling, burns. Prolonged or repeated contact may cause dermatitis.

SKIN ABSORPTION: No data available.

INGESTION: May cause burns in mouth, throat, and stomach. May cause allergic reaction, diarrhea, central nervous system depression, in extreme cases death. May cause vomiting; vomit may be aspirated into lungs causing chemical pneumonia.

INHALATION: High concentration of mist may cause lung damage.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Irritation, redness, tearing, pain.

SKIN: Irritation, redness, pain.

SKIN ABSORPTION: No data available.

INGESTION: Abdominal, stomach, and chest pain, nausea.

INHALATION: Irritation of the nose and throat. Cough.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing skin disorders or eye problems or impaired kidney or respiratory function.

ROUTES OF ENTRY: Skin.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Remove contaminated clothing. Wash with water for at least 15 minutes. Consult a physician.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Remove affected person to fresh air. If not breathing, give artificial respiration. Get medical attention.

ADDITIONAL INFORMATION: After emergency actions, call the emergency medical information number in section 1 or a physician immediately.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE CLASS: Not applicable.

EXTINGUISHING MEDIA: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: Not applicable.

FIRE FIGHTING EQUIPMENT: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb with inert material observing precautions in the Protective Equipment section. Place absorbed material in closed containers for disposal.

LARGE SPILL: Contain spill. Absorb with inert material observing precautions in the Protective Equipment section. Place absorbed material in closed containers for disposal. Do not flush to sewer. Avoid contamination of ground and surface waters.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: No data available.

HANDLING: Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

STORAGE: Store in labeled, tightly sealed containers in a cool area. Protect from freezing.

ELECTROSTATIC ACCUMULATION HAZARD: Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE GUIDELINES:****OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)****EXPOSURE LIMITS**

		OSHA PEL		ACGIH TLV		Supplier OEL	
		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Potassium hydroxide	TWA		C 2		C 2		
	STEL		NE ⁽¹⁾		NE		
(trade secret #1)	TWA		NE		NE		
	STEL		NE		NE		
(trade secret #2)	TWA	20 ⁽²⁾		20 ⁽¹⁾⁽¹⁾			
	STEL	NE		NE			
(trade secret #3)	TWA		NE		NE		
	STEL		NE		NE		

TABLE FOOTNOTES:

1. NE=Not established.
2. Skin notation.
3. A4: Not classifiable as a human carcinogen.

The specific identities of one or more components of this product are withheld as trade secrets.

ENGINEERING CONTROLS: Not applicable.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical goggles and a face shield.

SKIN: Neoprene, BarricTM, or other caustic resistant gloves.

RESPIRATORY: Not expected to require respirator usage. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release and exposure levels are not known.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling. Do not eat or drink in work area.

OTHER USE PRECAUTIONS: Have eye wash station available. Do not wear contact lenses without eye protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid.

ODOR: Ammonia-like odor.

APPEARANCE: Slightly cloudy.

COLOR: Light yellow.

pH: 14

PERCENT VOLATILE: ~87

VAPOR PRESSURE: <17 mm Hg at 20°C

VAPOR DENSITY: >1 (air=1)

BOILING POINT: 100°C (212°F)

FREEZING POINT: ~ -10°C (-15°F)

SOLUBILITY IN WATER: Miscible.

EVAPORATION RATE: ~0.3 (butyl acetate = 1)

SPECIFIC GRAVITY: 1.12

COEFF. OIL/WATER: No data available.

ODOR THRESHOLD: No data available.

10. STABILITY AND REACTIVITY

STABLE: Yes.

HAZARDOUS POLYMERIZATION: No.

CONDITIONS TO AVOID: None.

STABILITY: Stable.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Potassium oxide, ammonia.

INCOMPATIBLE MATERIALS: Acids, organics, combustibles and reactive metals.

11. TOXICOLOGICAL INFORMATION**ACUTE**

ORAL LD₅₀: ~3500 mg/kg (rat & mouse data combined)

INHALATION LC₅₀: No data available.

CHRONIC

TARGET ORGANS: No data available.

SENSITIZATION: No data available.

CARCINOGENICITY:

IARC: Not listed as a carcinogen.

NTP: Not listed as a carcinogen.

OSHA: Not listed as a carcinogen.

OTHER: Not applicable.

OTHER: No data available.

REPRODUCTIVE EFFECTS: No data available.

MUTAGENICITY: No data available.

SYNERGISTIC MATERIALS: No data available.

GENERAL COMMENTS: Refer to Section 3 for additional information on potential health effects.

12. ECOLOGICAL INFORMATION

GENERAL COMMENTS: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

EMPTY CONTAINER: Dispose of in accordance with federal, state and local regulations.

RCRA/EPA WASTE INFORMATION: Contains material(s) that are corrosive wastes as defined by RCRA.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Corrosive Liquid, NOS

TECHNICAL NAME(S): Potassium hydroxide.

PRIMARY HAZARD CLASS/DIVISION: 8

UN/NA NUMBER: UN1760

PACKING GROUP: II

LABEL: Corrosive.

REPORTABLE QUANTITY (RQ) UNDER CERCLA: >2300 gals

OTHER SHIPPING INFORMATION: Not applicable.

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Corrosive Liquid, NOS.
PRIMARY HAZARD CLASS/DIVISION: 8
UN/NA NUMBER: UN1760
PACKING GROUP: II
LABEL: Corrosive.

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Corrosive Liquid, NOS
TECHNICAL NAME(S): Potassium hydroxide
PRIMARY HAZARD CLASS/DIVISION: 8
UN/NA NUMBER: UN1760
PACKING GROUP: II
LABEL: Corrosive.
PLACARDS: Consult applicable regulations governing air shipments.
IATA NOTE: Consult applicable regulations on packaging requirements and quantity limitations.

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:**

FIRE: No. **PRESSURE GENERATING:** No. **REACTIVITY:** No. **ACUTE:** Yes.
CHRONIC: No.

313 REPORTABLE INGREDIENTS: None.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: Potassium hydroxide has an RQ of 1000 lbs.

REPORTABLE SPILL QUANTITY: >2300 gals

RCRA STATUS: See section 13.

CANADA

WHMIS CLASS: Class D, Division 2 and Class E

MEXICO

Regulated for transportation.

STATE REGULATIONS**MASSACHUSETTS:**

Contains one or more substances named on the Massachusetts Substance List.

CALIFORNIA:

PROPOSITION 65 STATEMENT: Not applicable.

16. OTHER INFORMATION

HMIS RATINGS:	
HEALTH:	3
FLAMMABILITY:	0
REACTIVITY:	1
PERSONAL PROTECTION:	H

NFPA RATINGS: