

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Steam Dragon

OTHER MEANS OF IDENTIFICATION: Not applicable.

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

PRODUCT DESCRIPTION: Boiler Water Conditioner

MANUFACTURER

R. R. Street & Co. Inc.

184 Shuman Boulevard/Suite 150

Naperville, IL 60563

Product Information: 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. HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Skin Corrosion/Irritation: Category 1

Eye Damage/Irritation: Category 1

GHS LABEL ELEMENTS

Symbol(s):



Signal Word: Danger

Hazard Statements:

H314 – Causes severe skin burns and eye damage.

Precautionary Statements:

P260 – Do not breathe in dust/fume/gas/mist/vapors/spray.

P264 – Wash skin thoroughly after handling.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330 +P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse SKIN with water/shower.

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
lenses if, if present and easy to do. Continue rinsing.

P307+P310 – IF exposed: Immediately call a POISON CENTER or doctor/physician.

P363 – Wash contaminated clothing before reuse.

P501 – Dispose of contents and container to licensed, permitted incinerator, or other thermal
destruction device.

Other Hazards: Not available.

Unknown Acute Toxicity: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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

<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	-	-

COMMENTS: None.

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. Consult a physician if irritation persists.

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.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Pain, watering, redness, irritation.

SKIN: Irritation, pain, redness, blistering.

SKIN ABSORPTION: Insufficient data available.

INGESTION: Vomiting, diarrhea, abdominal pain, nausea.

INHALATION: May cause respiratory irritation and possible symptoms of allergic reaction including bronchoconstriction, sweating, increased heart rate, decreased blood pressure, and anaphylaxis. .

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

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not applicable.

EXTINGUISHING MEDIA: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: Not applicable.

FIRE FIGHTING EQUIPMENT: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spill with absorbent material and water, if necessary.

LARGE SPILL: Contain spill. Clean up spills immediately with absorbent material, observing precautions in the Exposure Controls/Personal Protection section (see section 8). Place absorbed material in closed containers for disposal (see section 13). Do not flush unneutralized residue to sewer. Avoid contamination of ground and surface waters.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: No data available.

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

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

ELECTROSTATIC ACCUMULATION HAZARD: Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
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 ^{[2][3]}			
	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 a trade secret.

ENGINEERING CONTROLS: Not applicable.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields, or goggles.

SKIN: Neoprene, Barrier™, 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.

PROTECTIVE CLOTHING: Where contact is likely, wear the appropriate chemical resistant equipment, which depending on circumstances may include gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

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

APPEARANCE: Slightly cloudy.

PHYSICAL STATE: Liquid.

COLOR: Light yellow.

ODOR: Ammonia-like odor.

ODOR THRESHOLD: No data available.

pH: 14

FREEZING POINT: ~-10°C (~15°F)

INITIAL BOILING POINT: 100°C (212°F)

FLASHPOINT: No data available.

EVAPORATION RATE: ~0.3 (butyl acetate = 1)

FLAMMABILITY (Solid, Gas): Not applicable, this product is a liquid at room temperature.

FLAMMABLE LIMITS: Not applicable.

VAPOR PRESSURE: <17 mm Hg at 20°C

VAPOR DENSITY: >1 (air=1)

RELATIVE DENSITY: 1.12

SOLUBILITY IN WATER: Miscible.

PARTITION COEFFICIENT (Log K_{ow}): No data available.

AUTOIGNITION TEMPERATURE: No data available.

DECOMPOSITION TEMPERATURE: No data available.

VISCOSITY: No data available.

PERCENT VOLATILE: ~87

10. STABILITY AND REACTIVITY

REACTIVITY: No.

CHEMICAL STABILITY: Stable.

POSSIBILITY OF HAZARDOUS REACTIONS: Polymerization will not occur.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: Strong acids, organics, combustibles, and reactive metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Potassium oxide, ammonia.

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: Skin.

ACUTE TOXICITY (ATE)

DERMAL LD₅₀: Insufficient data available.

ORAL LD₅₀: > 2,000 (rat)

INHALATION LD₅₀: Insufficient data available.

CHRONIC TOXICITY

TARGET ORGANS: Insufficient data available.

SENSITIZATION: Insufficient data available.

CARCINOGENICITY

IARC: Not listed as a carcinogen.

NTP: Not listed as a carcinogen.

OSHA: Not listed as a carcinogen.

OTHER: No data available.

OTHER: No data available.

REPRODUCTIVE EFFECTS: Insufficient data available.

MUTAGENICITY: Insufficient data available.

SYNERGISTIC MATERIALS: No data available.

POTENTIAL HEALTH EFFECTS

EYES: Corrosive to eyes. Causes serious eye damage, burns, and blindness.

SKIN: Corrosive to skin. Causes burns.

SKIN ABSORPTION: Insufficient data available.

INGESTION: Harmful if swallowed. May cause burns to mouth, throat, or stomach. May cause severe allergic reactions in asthmatics and sulfite sensitive individuals. May lead to central nervous system depression, drowsiness, and even death. May cause diarrhea and vomiting. In the case of vomiting, product may be aspirated into lungs causing chemical pneumonia, which in extreme cases could lead to death. See section 4, First Aid Measures, for more information.

ASPIRATION HAZARD: There is insufficient data available to classify this product as an aspiration hazard. Follow the precautions under INGESTION.

INHALATION: High concentration of mist may cause lung damage. May cause allergic reactions in asthmatics and sulfite sensitive individuals.

MEDICAL CONDITIONS AGGRAVATED: Respiratory disorders, asthma. Sulfite sensitive individuals may experience allergic reactions.

GENERAL COMMENTS: Refer to Section 2 for additional information on potential health effects.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: A component in this product has moderate aquatic toxicity.

PERSISTENCE AND DEGRADABILITY: Insufficient data available.

BIOACCUMULATIVE POTENTIAL: Insufficient data available.

MOBILITY IN SOIL: Insufficient data available.

OTHER ADVERSE EFFECTS: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recovered liquids may be sent to a licensed reclaimer or incineration facility. Contaminated material must be disposed of in a permitted waste management facility. Consult federal, state, and local authorities for approved procedures.

EMPTY CONTAINER: Not applicable.

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: >2,300 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.

OTHER SHIPPING INFORMATION: Not applicable.

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:** >2,300 gals.**RCRA STATUS:** See section 13.**MEXICO**

Regulated for transportation.

STATE REGULATIONS**MASSACHUSETTS**

Contains one or more substances regulated by the Massachusetts Substance List.

CALIFORNIA**PROPOSITION 65 STATEMENT:** This product contains no ingredients known to the state of California to cause cancer, birth defects, or other reproductive harm.**16. OTHER INFORMATION**

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

NFPA RATINGS