MATERIAL SAFETY DATA SHEET

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: RAYNOX™ Water Softener

MANUFACTURER: Valent BioSciences Corporation
870 Technology Way, Suite 100
Libertyville, Illinois 60048

EMERGENCY TELEPHONE NUMBERS
Emergency Health or Spill:
Outside the United States: 651-632-6184
Within the United States: 877-315-9819

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME: Tetrasodium ethylenediaminetetraacetate
CONCENTRATION: 37.5 %
CAS NUMBER: 64-02-8
OSHA-PEL 8HR TWA: N/L
STEL: N/L
CEILING: N/L
ACGIH-TLV 8HR TWA: N/L
STEL: N/L
CEILING: N/L
OTHER LIMITS 8HR TWA: N/A
STEL: N/A
CEILING: N/A

INGREDIENT NAME: Sodium Hydroxide
CONCENTRATION: < 2 %
CAS NUMBER: 1310-73-2
OSHA-PEL 8HR TWA: N/L
STEL: N/L
CEILING: N/L
ACGIH-TLV 8HR TWA: N/L
STEL: N/L
CEILING: N/L
OTHER LIMITS 8HR TWA: N/A
STEL: N/A
CEILING: N/A

INGREDIENT NAME: Other/Inert Ingredients - identity is Trade Secret
CONCENTRATION: 60.5 %
CAS NUMBER: N/A
OSHA-PEL 8HR TWA: N/L
STEL: N/L

	CEILING:	N/L
ACGIH-TLV	8HR TWA:	N/L
	STEL:	N/L
	CEILING:	N/L
OTHER	8HR TWA:	N/A
LIMITS	STEL:	N/A
	CEILING:	N/A

3. HAZARDS INFORMATION

EMERGENCY OVERVIEW: May cause severe eye irritation with corneal injury. Ingestion may cause burns to mouth and throat and irritate gastrointestinal tract. May cause skin irritation. Inhalation of mist may irritate nose and throat.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D.

4. FIRST AID MEASURES

IF IN EYES: Hold eye open and rinse slowly and gently with water for at least 30 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention.

IF ON SKIN: Wash skin with plenty of water. Get medical attention if irritation persists.

IF SWALLOWED: Do not induce vomiting. Have person sip a glass of water or milk if able to swallow and get medical attention. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. Get medical attention if irritation persists.

5. FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA: Not flammable. Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep fire exposed containers cool.

SPECIAL EXPOSURE HAZARDS: None known.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear self-contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: See Section 8 for personal protection measures.

METHODS FOR CLEANING Up: Absorb material with earth, sand or other non-combustible material and transfer to containers for disposal. Do not allow spilled material to enter waterways or sewers.

7. HANDLING AND STORAGE

HANDLING: Good standards of hygiene should be maintained at all times. For personal protection measures, see section 8.

STORAGE: Store in a cool, dry area at room temperature. Keep container tightly closed when not in use. Do not transfer and store product in metal containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE CLOTHING: Wear impervious clothing and chemical resistant gloves when handling.

RESPIRATORY PROTECTION: Not normally required in areas with general ventilation. A NIOSH-approved particulate respirator is recommended when working in a misty environment.

EYE PROTECTION: Chemical goggles or full face shield are recommended. Eye fountain and washing facilities should be present at work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: light yellow liquid

ODOR: amine

BOILING POINT: 223°F (106°C)

FLASH POINT: Not flammable

FLAMMABLE LIMITS: Not applicable

EXPLOSIVE PROPERTIES: No data available

OXIDIZING PROPERTIES: No oxidizing properties

VAPOR PRESSURE: same as water

pH (@ 25°C): No data available

SPECIFIC GRAVITY:1.31 (H_2O=1)

SOLUBILITY IN WATER: 100% soluble

10. STABILITY AND REACTIVITY

CONDITIONS/MATERIALS TO AVOID: Strong oxidizing agents. Contact with soft metals such as aluminum can generate flammable hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion products may include carbon monoxide and ammonia.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL: LD_{50} oral (rat): 3030 mg/kg

ACUTE DERMAL: LD_{50} dermal (rabbit): > 5000 mg/kg

12. ECOLOGICAL INFORMATION

Low bioconcentration potential. Biodegradation under aerobic laboratory conditions is below detectable limits. Practically non-toxic to fish.

Fathead minnow, LC_{50} : > 100 mg/L

Bluegill, LC_{50} : 1030 mg/L

13. DISPOSAL CONSIDERATIONS

Recover or recycle if possible. Do not discharge into sewers, lakes, streams, or other bodies of water. Disposal should be made in accordance with applicable regional, national and local laws and regulations. Consult appropriate regulatory officials for information on disposal, keeping in mind that local regulations may be more stringent than regional or national requirements.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Corrosive liquid, basic, organic, n.o.s. (sodium hydroxide)

HAZARD CLASS: 8

UN Number: UN 3267

PACKING GROUP: III

EXCEPTIONS: Containers of 5 liters or smaller are exempt from labeling, placarding and UN packaging requirements. The words "limited quantity" or "ltd qty" must follow the shipping name on shipping papers.

15. REGULATORY INFORMATION

CA Prop. 65: This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SARA 313: Contains no chemicals subject to SARA Title III Section 313 in quantities sufficient to trigger reporting requirements.

TSCA: All components of this product are included or exempt from inclusion in EPA's Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

WHMIS: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

HMIS Ratings: Health – 2 Flammability – 0 Reactivity – 0

REASON FOR ISSUE: New MSDS
APPROVAL DATE: 02/25/2013
SUPERSEDES DATE:

LEGEND: N/A = Not Applicable
N/D = Not Determined
N/L = Not Listed
L = Listed
C = Ceiling
S = Short-term
(TM) = Trademark of Valent BioSciences

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VALENT BIOSCIENCES CORPORATION

870 Technology Way, Suite 100
Libertyville, IL 60048 – 800-323-9597

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