

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product name RAINBOW™ Solution 6 Water Hardness Test

Other means of identification
Product Code(s) R161637, R161915

Recommended use of the chemical and restrictions on use
Recommended Use Test kit reagent for water testing. Industrial (not for food or food contact use). Laboratory chemicals.

Details of the supplier of the safety data sheet
Manufacturer Address
Supplier Address

 Pentair Water Pool and Spa
 1620 Hawkins Avenue
 Sanford, NC 27330
 Telephone: 800-831-7133

Emergency telephone number

24 Hour Emergency Number (CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

EMERGENCY OVERVIEW

DANGER
Hazard statements

Causes serious eye damage. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.


Appearance Clear, colorless

Physical state liquid

Odor None

Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention.

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

Immediately call a POISON CENTER or doctor/physician.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Other Hazards

Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Diethanolamine	111-42-2	3
Triethanolamine	102-71-6	17

4. FIRST AID MEASURES

FIRST AID MEASURES

General advice

Do not get in eyes, on skin, or on clothing.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists or develops, contact a physician.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Self-protection of the first aider

Use personal protective equipment. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, alcohol-resistant foam or water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Avoid contact with skin, eyes, and inhalation of vapors.

Environmental precautions See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Store at room temperature. Keep away from direct sunlight. Keep away from heat and incompatibles. Keep out of the reach of children.

Incompatible Products Strong acids. Strong bases. Strong oxidizing agents. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diethanolamine 111-42-2	TWA: 1 mg/m ³	-	TWA: 3 ppm TWA: 15 mg/m ³
Triethanolamine 102-71-6	TWA: 5 mg/m ³	-	None Established

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face Protection Safety glasses with side-shields.

Skin and body protection Impervious clothing. Protective gloves.

Respiratory protection Not expected to require personal respirator with normal usage.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance Clear, colorless
Odor None

Property Values Remarks • Method

pH
Melting point/freezing point No information available

Boiling Point/Range	100 °C / 212 °F
Flash point	No information available
Evaporation rate	
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	ca. 1
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of use and storage.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Incompatible products. Direct sunlight.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents. Metals.
Hazardous decomposition products	Carbon oxides (COx). Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diethanolamine 111-42-2	= 0.62 mL/kg (Rat) = 620 µL/kg (Rat)	= 7640 µL/kg (Rabbit)	None Established
Triethanolamine 102-71-6	= 4190 mg/kg (Rat)	> 16 mL/kg (Rat) > 20 mL/kg (Rabbit)	None Established

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Diethanolamine 111-42-2	A3	Group 2B	None Established	X
Triethanolamine 102-71-6	-	Group 3	None Established	-

ATEmix (oral)	11775 mg/kg
ATEmix (dermal)	76616 mg/kg
ATEmix (inhalation-dust/mist)	4.2 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Unknown Aquatic Toxicity 0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Diethanolamine 111-42-2	7.8: 72 h Desmodesmus subspicatus mg/L EC50 2.1 - 2.3: 96 h Pseudokirchneriella subcapitata mg/L EC50	4460 - 4980: 96 h Pimephales promelas mg/L LC50 flow-through 1200 - 1580: 96 h Pimephales promelas mg/L LC50 static 600 - 1000: 96 h Lepomis macrochirus mg/L LC50 static	55: 48 h Daphnia magna mg/L EC50
Triethanolamine 102-71-6	169: 96 h Desmodesmus subspicatus mg/L EC50 216: 72 h Desmodesmus subspicatus mg/L EC50	10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through 450 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 1000: 96 h Pimephales promelas mg/L LC50 static	1386: 24 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical name	Log Pow
Diethanolamine 111-42-2	-2.18
Triethanolamine 102-71-6	-2.53

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of contents/container in accordance with local regulation.

Contaminated packaging

Do not re-use empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Diethanolamine 111-42-2	None Established	-	None Established	None Established
Triethanolamine 102-71-6	None Established	-	None Established	None Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Diethanolamine 111-42-2	None Established	None Established	None Established	None Established
Triethanolamine 102-71-6	None Established	None Established	None Established	None Established

Chemical name	California Hazardous Waste Status
Diethanolamine 111-42-2	-
Triethanolamine 102-71-6	-

14. TRANSPORT INFORMATION

DOT

Not regulated

IATA

Not regulated

IMDG/IMO

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Diethanolamine 111-42-2	None Established
Triethanolamine 102-71-6	None Established

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Diethanolamine 111-42-2	None Established	None Established	None Established	None Established
Triethanolamine 102-71-6	None Established	None Established	None Established	None Established

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Diethanolamine 111-42-2	100 lb	None Established	RQ 100 lb final RQ RQ 45.4 kg final RQ
Triethanolamine	-	None Established	-

102-71-6			
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U.S. State Regulations

California Proposition 65

WARNING! This product contains a chemical known to the State of California to cause cancer

Chemical name	California Prop. 65
Diethanolamine 111-42-2	Carcinogen
Triethanolamine 102-71-6	None Established

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Diethanolamine 111-42-2	X	X	X
Triethanolamine 102-71-6	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health hazard 1	Flammability 0	Instability 0	Physical and Chemical Hazards N/A
<u>HMIS</u>	Health hazard 1	Flammability 0	Physical hazards 1	Personal precautions N/A



Health Hazard	1
Fire Hazard	0
Reactivity	1

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Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS