



# SAFETY DATA SHEET

According to 29 CFR 1910.1200 Hazard Communication Standard 2012 (HazCom 2012)

Revision: 05/05/2022

## SECTION 1: Identification

<b>Product identifier</b>	
Product name	General Hardness (GH) Reagent #1
Product number	R-4009
<b>Recommended use and restrictions</b>	Water analysis. To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer.
<b>Manufacturer</b>	Taylor Water Technologies LLC 31 Loveton Circle Sparks, MD 21152 Local: (410) 472-4340 – 8am – 5pm EST Toll-free: (800) 837-8548 – 8am – 5pm EST
<b>Emergency phone number</b>	
CHEMTREC, United States	1-800-424-9300 – 24-hour service
CHEMTREC, International	+1 703-741-5970 – 24-hour service

## SECTION 2: Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Eye damage/irritation	Category 2A
	Specific target organ toxicity, single exposure, narcotic	Category 3
<b>Environmental hazards</b>	Not currently regulated by OSHA. For additional information, refer to section 12 of the SDS.	

### Label elements

Hazard pictograms



Signal word	Danger
Hazard statements	Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.
Precautionary statements	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection if contact is likely to occur. Wash skin thoroughly after handling. Avoid breathing mist/vapors. Use only outdoors or in a well-ventilated area.
Response	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician or poison center if you feel unwell. IF ON SKIN (OR HAIR): Immediately take off all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. IF EYE IRRITATION PERSISTS: Get medical advice/attention. IN CASE OF FIRE: Use alcohol-resistant foam, carbon dioxide, dry chemical powder, or water fog to extinguish.
Storage	Store in well-ventilated place. Keep cool. Keep tightly capped. Store out of direct sunlight between 36°F-85°F. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazards not otherwise classified</b>	Not applicable

### SECTION 3: Composition/information on ingredients

#### Mixture

Chemical name	Common name and synonyms	CAS number	% w/w
Triethanolamine	Trolamine, 2,2', 2'' -Nitrilotriethanol	102-71-6	60-80
Isopropyl alcohol	Isopropanol	67-63-0	10-30
Diethanolamine	2,2'-iminodiethanol	111-42-2	0.01-1
Non-hazardous component(s)	Not applicable	Not applicable	<1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

### SECTION 4: First-aid measures

#### If inhaled

Remove individual to fresh air. Seek medical advice/attention if breathing becomes difficult or if respiratory irritation develops. Give oxygen or artificial respiration if needed.

#### In case of skin contact

Immediately flush skin with plenty of water for at least 20 minutes. If clothing comes in contact with the product, the clothing should be removed and laundered before reuse. Seek medical advice/attention if irritation develops.

#### In case of eye contact

Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice/attention.

#### If swallowed

Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs. If symptoms persist or in all cases of concern, seek medical advice/attention.

#### Most important symptoms and effects, both acute and delayed

Direct skin or eye contact may cause temporary irritation. Symptoms may include redness or itching. Tearing of the eyes or blurred vision may occur. Inhalation may cause headache, drowsiness, or dizziness. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Refer to section 11 of the SDS for delayed and immediate effects and chronic effects from short- and long-term exposure.

#### Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

#### General information

Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

### SECTION 5: Firefighting measures

#### Extinguishing media

Suitable extinguishing media Alcohol-resistant foam, carbon dioxide, dry chemical powder, or water fog.

Unsuitable extinguishing media Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### Specific hazards arising from the substance or mixture

Fire hazard Flammable liquid and vapor. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can be electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential static discharge, use proper bonding and grounding procedures. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and may spread along floors.

Explosion hazard Vapors may form explosive mixtures with air. This material may be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors are heavier than air and may spread along floors.

Reactivity Hazardous reactions will not occur under normal conditions.

Hazardous combustion products Carbon oxides, nitrogen oxides. During fire, gases hazardous to health may be formed.

#### Advice for firefighters

Precautionary measures Exercise caution when fighting any chemical fire; hazardous fumes will be present.

Firefighting equipment/instructions Use water spray or fog for cooling exposed containers.

Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.

Other information Refer to section 9 of the SDS for flammability properties.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment, and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during cleanup. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

### Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

### Methods and material for containment and cleaning up

Ventilate the contaminated area. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewers, basements, or confined areas. Following product recovery, flush area with water to remove residual contamination. Never return spills to original containers for reuse. Contaminated absorbent material may pose the same hazards as the spilled product. In the event of large spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### Reference to other sections

For exposure controls and personal protection, refer to section 8 of the SDS. For waste disposal, refer to section 13 of the SDS.

## SECTION 7: Handling and storage

### Personal precautions, protective equipment, and emergency procedures

Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

### Conditions for safe storage, including any incompatibilities

Store in well-ventilated place. Keep cool. Keep tightly capped. Store out of direct sunlight between 36°F-85°F. Store away from incompatible materials (refer to section 10 of the SDS).

## SECTION 8: Exposure controls/personal protection

### Occupational exposure limits

#### US ACGIH Threshold Limit Values

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm (980 mg/m <sup>3</sup> )
Isopropanol (CAS 67-63-0)	TWA	200 ppm (492 mg/m <sup>3</sup> )
Triethanolamine (CAS 102-71-6)	TWA	5 mg/m <sup>3</sup>
Diethanolamine (CAS 111-42-2)	TWA	1 mg/m <sup>3</sup>

#### US NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Isopropanol (CAS 67-63-0)	ST	500 ppm (1225 mg/m <sup>3</sup> )
Isopropanol (CAS 67-63-0)	TWA	400 ppm (980 mg/m <sup>3</sup> )
Isopropanol (CAS 67-63-0)	IDLH	2,000 ppm (4920 mg/m <sup>3</sup> )
Diethanolamine (CAS 111-42-2)	TWA	3 ppm (15 mg/m <sup>3</sup> )

#### US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Isopropanol (CAS 67-63-0)	TWA	400 ppm (980 mg/m <sup>3</sup> )

### Biological limit values

#### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	40 mg/L	Acetone	Urine	End of shift at end of workweek

### Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust

ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Eye/face protection

Wear appropriate safety glasses with side shields (or goggles) if contact is likely to occur.

Skin protection

Wear appropriate chemical-resistant gloves and clothing if contact is likely to occur.

Body protection

Wear appropriate protective clothing if contact is likely to occur.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Physical state	Liquid
Form	Liquid
Color	Dark blue
Odor	Alcohol
Odor threshold	No data available
pH	No data available
Evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Initial boiling point (boiling range)	180°F (82°C)
Flash point	53°F (12°C) Closed cup
Specific gravity	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Flammable
Upper Flammability Limit	UEL 12% v/v
Lower Flammability Limit	LEL 2% v/v
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	Soluble in all proportions
Partition coefficient (n-octanol/water)	No data available
Viscosity	No data available
Explosive properties	Moderately explosive when exposed to heat or flame.
Oxidizing properties	No data available

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	Hazardous reactions will not occur under normal conditions of use, storage, and transport.
<b>Chemical stability</b>	Stable under recommended handling and storage conditions (refer to section 7 of the SDS.)
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat, sparks, open flames, and other ignition sources. Temperatures exceeding the flash point. Direct sunlight. Contact with incompatible materials. Do not use in areas without adequate ventilation.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids and bases. Acetaldehyde, ethylene oxide, and isocyanates.
<b>Hazardous decomposition products</b>	No hazardous decomposition products under normal conditions.

## SECTION 11: Toxicological information

### Information on likely routes of exposure

Inhalation

Avoid inhalation of this product. Use in a well-ventilated area.

Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Avoid accidental ingestion by observing good hygiene practices. Wash hands thoroughly after handling this product.

**Symptoms related to the physical, chemical, and toxicological characteristics** Inhalation of mist or vapor may cause drowsiness or dizziness. Refer to section 4 of the SDS for most important symptoms and effects.

**Delayed and immediate effects and chronic effects from short- and long-term exposure**

**Acute toxicity** This product is not classified as an acute toxicity hazard.

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** Causes serious eye irritation

**Respiratory sensitization** No data available

**Skin sensitization** No data available

**Germ cell mutagenicity** No data available

**Carcinogenicity**

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Diethanolamine, Group 2B, Possibly carcinogenic to humans. Triethanolamine, Isopropyl alcohol, Group 3, Not classifiable as to its carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)**

Not regulated

**US National Toxicology Program (NTP) Report on Carcinogens**

Not listed

**Reproductive toxicity** No data available

**Specific target organ toxicity (single exposure)** May cause drowsiness or dizziness.

**Specific target organ toxicity (repeated exposure)** No data available

**Aspiration hazard** No data available

**SECTION 12: Ecological information**

**Ecotoxicity** This product is not classified as environmentally hazardous.

**Persistence and degradability** No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**Other adverse effects** Large or frequent spills can have a harmful or damaging effect on the environment.

**SECTION 13: Disposal considerations**

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Since emptied containers may retain product residue, follow label warnings even after container is emptied. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

**SECTION 14: Transport information**

**DOT**

<b>UN number</b>	1219
<b>UN Proper shipping name</b>	Isopropyl alcohol solution
<b>Reportable Quantity</b>	None
<b>Class (Subsidiary risk)</b>	3
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special provisions</b>	IB2, T4, TP1
<b>Packaging exceptions</b>	4b, 150
<b>Packaging, non-bulk</b>	202

**IATA**

<b>UN number</b>	1219
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**UN Proper shipping name** Isopropyl alcohol solution  
**Class (Subsidiary risk)** 3  
**Packing group** II  
**Special provisions** A180

**IMDG**

**UN number** 1219  
**UN Proper shipping name** Isopropyl alcohol solution  
**Class (Subsidiary risk)** 3  
**Packing group** II  
**Environmental hazards**

**Marine pollutant** No

**Special provisions** None

**EmS** F-E, S-D

**Special precautions for user** Read safety instructions, SDS, and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** This substance/mixture is not intended to be transported in bulk.

**DOT hazard pictograms**



**IATA; IMDG hazard pictograms**



**SECTION 15: Regulatory information**

**US federal regulations**

**CERCLA Hazardous Substance (40 CFR 302.4)**

<u>Chemical name</u>	<u>CAS number</u>	<u>Reportable Quantity</u>
Diethanolamine	111-42-2	100 lbs

**SARA 302 Extremely Hazardous Substance (40 CFR 355 Appendices A / B)**

Not regulated

**SARA 304 Emergency Release Notification**

Not regulated

**SARA 311/312 Hazardous Chemical**

<u>Chemical name</u>	<u>CAS number</u>
Isopropanol	67-63-0
Triethanolamine	102-71-6
Diethanolamine	111-42-2

**SARA 313 (TRI reporting)**

<u>Chemical name</u>	<u>CAS number</u>
Isopropanol	67-63-0
Diethanolamine	111-42-2

**TSCA Section 8(b) Chemical Inventory**

All components are on the U.S. EPA TSCA Inventory list.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs)

Not regulated

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

### Clean Water Act, Toxic and Priority Pollutants (40 CFR 401.15 and CFR 423, Appendix A)

Not regulated

### Safe Drinking Water Act (SDWA)

Not regulated

## US state regulations

### California Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65)

<u>Chemical name</u>	<u>CAS number</u>
Diethanolamine	111-42-2

**WARNING:** This product can expose you to Diethanolamine, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### Massachusetts Right-to-Know Act

Not regulated

### New Jersey Worker and Community Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Isopropanol	67-63-0
Triethanolamine	102-71-6
Diethanolamine	111-42-2

### Pennsylvania Worker and Community Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Isopropanol	67-63-0
Triethanolamine	102-71-6
Diethanolamine	111-42-2

### Rhode Island Right-to-Know Act

<u>Chemical name</u>	<u>CAS number</u>
Isopropanol	67-63-0
Triethanolamine	102-71-6
Diethanolamine	111-42-2

## SECTION 16: Other information

### NFPA Rating

Health hazard	2
Fire hazard	3
Reactivity	0
Specific	N/A

### Disclaimer

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