



SAFETY DATA SHEET

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

Revision: 07/28/2022

SECTION 1: Identification

Product identifier	
Product name	Nitrate Reagent
Product number	R-4007
Recommended use and restrictions	Water analysis. To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer.
Manufacturer	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
Emergency phone number	
CHEMTREC, United States	1-800-424-9300 – 24-hour service
CHEMTREC, International	+1 703-741-5970 – 24-hour service

SECTION 2: Hazard(s) Identification

Physical hazards	Substances/mixtures which, in contact with water, emit flammable gases	Category 3
Health hazards	Eye damage/irritation	Category 2A
Environmental hazards	Not currently regulated by OSHA. For additional information, refer to section 12 of the SDS.	
Label elements	Hazard pictograms	
Signal word	Warning	
Hazard statements	In contact with water releases flammable gas. Causes serious eye irritation.	
Precautionary statements		
Prevention	Protect from moisture. Wash skin thoroughly after handling. Wear protective gloves/eye protection/face protection.	
Response	<p>IN CASE OF FIRE: Use dry sand, clay, class D extinguishers to extinguish.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p> <p>IF EYE IRRITATION PERSISTS: Get medical advice/attention.</p>	
Storage	Store in a dry place. Store in a closed container. Keep tightly capped. Store out of direct sunlight between 36°F–85°F.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazards not otherwise classified	Not applicable	

SECTION 3: Composition/Information on Ingredients

Mixture			
Chemical name	Common name and synonyms	CAS number	% w/w
Citric acid	2-Hydroxy-1,2,3-propanetricarboxylic acid	77-92-9	45-70
Zinc	Zinc powder	7440-66-6	1-5
N-(1-Naphthyl)ethylenediamine dihydrochloride	None	1465-25-4	0.5-1.5
Non-hazardous component(s)	Not applicable	Not applicable	<30

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 respiratory irritation, such as coughing. 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 Dry sand, clay, approved class D extinguishers. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media DO NOT USE WATER, carbon dioxide (CO₂), dry chemical, foam.

Specific hazards arising from the substance or mixture

Fire hazard Not flammable

Explosion hazard Not explosive

Reactivity Water reactive. Contact with water releases flammable gases.

Hazardous combustion products Carbon oxides, sodium oxides, sulfur oxides.

Advice for firefighters

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

Firefighting equipment/instructions Use dry sand, clay, approved class D extinguishers.

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

Wear appropriate protective equipment and clothing during cleanup. 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

Large spills: Eliminate all ignition sources. Dike the spilled material where this is possible. Use care to minimize dust generation and accumulation. Cover with dry earth, dry sand or other non-combustible material followed by plastic sheet to minimize spreading and contact with moisture until disposal can be accomplished.

Small spills: Sweep up spillage and collect in suitable container for disposal. Keep collected material dry. Never return spills to original containers for reuse. Wipe surface clean to remove residual contamination.

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

Precautions for safe handling

Do not breathe dust. 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

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

No exposure limits noted for the ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

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. Eyewash facilities and emergency shower must be available when handling this product.

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	Solid
Form	Powder
Color	Faint grey
Odor	Odorless
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)	No data available
Flash point	No data available
Specific gravity	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	No data available
Upper Flammability Limit	No data available
Lower Flammability Limit	No data available
Vapor pressure	No data available
Vapor density	No data available
Solubility	No data available
Partition coefficient (n-octanol/water)	No data available

Viscosity	No data available
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

SECTION 10: Stability and Reactivity

Reactivity	Hazardous reactions will not occur under normal conditions of use, storage, and transport.
Chemical stability	Stable under recommended handling and storage conditions (refer to section 7 of the SDS).
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid dust formation. Incompatible products. Exposure to moisture. Do not use in areas without adequate ventilation.
Incompatible materials	Strong acids, strong bases, strong oxidizing agents. Amines. Phenols.
Hazardous decomposition products	No hazardous decomposition products known.

SECTION 11: Toxicological Information

Information on likely routes of exposure	
Inhalation	Avoid inhalation of this product. Use care to minimize dust generation and accumulation. 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 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	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	
Not listed	
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)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration hazard	No data available

SECTION 12: Ecological Information

Ecotoxicity	This product has not been classified.
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

UN number	2813
UN Proper shipping name	Water-reactive solid, n.o.s
Reportable Quantity	None
Class (Subsidiary risk)	4.3
Label(s)	4.3
Packing group	III
Special provisions	B132, IB8, IP21, T1, TP33, W31
Packaging exceptions	151
Packaging, non-bulk	213

IATA

UN number	2813
UN Proper shipping name	Water-reactive solid, n.o.s
Class (Subsidiary risk)	4.3
Packing group	III
Special provisions	A3, A803

IMDG

UN number	2813
UN Proper shipping name	Water-reactive solid, n.o.s
Class (Subsidiary risk)	4.3
Packing group	III
Environmental hazards	
Marine pollutant	No
Special provisions	223, 274
EmS	F-G, S-N

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)

Not regulated

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

Refer to section 2 for hazards associated with this product.

SARA 313 (TRI reporting)

Not regulated

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)**

Not regulated

SECTION 16: Other Information**Disclaimer**

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