World Headquarters Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669-3050

MSDS No: M02439

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nitrite Reagent Vial *Catalog Number:* TNT839R

Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669-3050 Emergency Telephone Numbers: (Medical and Transportation) (303) 623-5716 24 Hour Service (515)232-2533 8am - 4pm CST

MSDS Number: M02439 Chemical Name: Not applicable CAS Number: Not applicable Additional CAS No. (for hydrated forms): Not applicable Chemical Formula: Not applicable Chemical Family: Not applicable Intended Use: Laboratory Reagent Determination of nitrite

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Serious Eye Damage/Eye Irritation:Eye Irrit. 2 Skin Corrosion/Irritation: Skin Irrit. 2 *GHS Label Elements:* WARNING



Hazard statements: Causes skin irritation. Causes serious eye irritation. *Precautionary statements:* Wear protective gloves / protective clothing / eye protection / face protection. IF ON SKIN: Wash with plenty of soap and 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.

HMIS:

Health: 1 Flammability: 0 Reactivity: 0 Protective Equipment: X - See protective equipment, Section 8. NFPA: Health: 1 Flammability: 0 Reactivity: 0 Symbol: Not applicable WHMIS Hazard Classification: Class D, Division 2, Subdivision B - Toxic material (other toxic effects) WHMIS Symbols: Other Toxic Effects

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS: <u>Citric Acid</u> CAS Number: 77-92-9 Chemical Formula: $C_6H_8O_7$ GHS Classification: Eye Irrit. 2 H319; Skin irrit. 2, H315 Percent Range (Trade Secret): 15.0 - 25.0 Percent Range Units: weight / weight PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust TLV: 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust

WHMIS Symbols: Other Toxic Effects Hazardous Components according to GHS: No Demineralized Water

> CAS Number: 7732-18-5 Chemical Formula: H₂O GHS Classification: Not a dangerous substance according to GHS. Percent Range (Trade Secret): 70 - 90 Percent Range Units: volume / volume PEL: Not established TLV: Not established

WHMIS Symbols: Not applicable <u>Other components, each</u>

CAS Number: Not applicable Chemical Formula: Not applicable. GHS Classification: Not applicable Percent Range (Trade Secret): < 1.0 Percent Range Units: weight / weight PEL: Not established TLV: Not established

WHMIS Symbols: Not applicable

4. FIRST AID MEASURES

General Information: In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.

Advice to doctor: Treat symptomatically.

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Remove contaminated clothing. Wash skin with plenty of water. Call physician if irritation develops.

Inhalation: Remove to fresh air.

Ingestion (First Aid): Give large quantities of water. Never give anything by mouth to an unconscious person. Call physician immediately.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn. *Fire Fighting Instruction:* As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

Extinguishing Media: Use media appropriate to surrounding fire conditions *Extinguishing Media NOT To Be Used:* Not applicable *Fire / Explosion Hazards:* May react violently with: metal nitrates *Hazardous Combustion Products:* This material will not burn.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: Cover spilled material with an alkali, such as soda ash or sodium bicarbonate. Scoop up slurry into a large beaker. Dilute with a large excess of water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Flush reacted material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

DOT Emergency Response Guide Number: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes skin clothing Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product. *Storage:* Keep container tightly closed when not in use.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product.
Personal Protective Equipment: Eye Protection: safety glasses with top and side shields Skin Protection: lab coat disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it. Inhalation Protection: adequate ventilation
Precautionary Measures: Avoid contact with: eyes skin Wash thoroughly after handling. TLV: Not established
PEL: Not established
For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless Physical State: Liquid Molecular Weight: Not applicable Odor: None Odor Threshold: Odorless *pH*: Not determined Metal Corrosivity: Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria. Steel: Not determined Aluminum: Not determined Specific Gravity/ Relative Density (water = 1; air =1): Not determined Viscosity: Not determined Solubility: Water: Miscible Acid: Not determined Other: Not determined Partition Coefficient (n-octanol / water): Not applicable Coefficient of Water / Oil: Not applicable Melting Point: Not determined Decomposition Temperature: Not determined Boiling Point: Not determined Vapor Pressure: Not determined *Vapor Density (air = 1):* Not determined *Evaporation Rate (water = 1):* Not determined Volatile Organic Compounds Content: 15-20%, Low Vapor Pressure (Not volatile) Flammable Properties: Material will not burn. Flash Point: Not applicable Method: Not applicable

Flammability Limits:
Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: Not applicable
Explosive Properties:
Not classified according to GHS criteria.
Oxidizing Properties:
Not classified according to GHS criteria.
Reactivity Properties:
Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.
Gas under Pressure:
Not classified according to GHS criteria.
Not classified according to GHS criteria.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
 Mechanical Impact: None reported
 Static Discharge: None reported.
 Reactivity / Incompatibility: May react violently in contact with: metal nitrates
 Hazardous Decomposition: Toxic fumes of: carbon dioxide carbon monoxide
 Conditions to Avoid: Extreme temperatures

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available for mixture. Toxicologically Synergistic Products: None reported Acute Toxicity: Based on classification principles, the classification criteria are not met. ATE Oral Rat LD50 = 16584 mg/kg Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met. Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met. Skin Corrosion/Irritation: Irritating to skin. *Eye Damage:* Irritating to eyes. Sensitization: Based on classification principles, the classification criteria are not met. CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): No germ cell mutagenicity, carcinogenicity or reproductive toxicity data found. This product does NOT contain any IARC listed chemicals. This product does NOT contain any NTP listed chemicals. This product does NOT contain any OSHA listed carcinogens. Symptoms/Effects: Ingestion: None reported Inhalation: No effects anticipated Skin Absorption: No effects anticipated Chronic Effects: Citric acid chronic overexposure may cause effects due to the ability of citric acid to chelate metals, which could impair the body's ability to absorb calcium and iron. Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available *Ingredient Ecological Information:* 96 hr Lepomis macrochirus LC50 = 1516 mg/L; 72 hr Daphnia magna LC50 = 120mg/L; LC50 48 hr Leuciscus idus melanotus LC50 = 440 mg/L; 48 hr Crustaceans LC50 = 160 mg/L. di-Sodium hydrogen phosphate: CEPA Statement: Persistent.

EPA Waste ID Number: Not applicable

Special Instructions (Disposal): Dilute material with excess water making a weaker than 5% solution. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOTICE (*Disposal*): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA T.D.G.Proper Shipping Name: Not Currently Regulated Hazard Class: NA Subsidiary Risk: NA UN Number/PIN: NA Packing Group: NA I.C.A.O.: I.C.A.O. Proper Shipping Name: Not Currently Regulated Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA I.M.O.: Proper Shipping Name: Not Currently Regulated Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

302 (EHS) TPQ (40 CFR 355): Not applicable
304 CERCLA RQ (40 CFR 302.4): Sodium Phosphate, Dibasic 5000 lbs.
304 EHS RQ (40 CFR 355): Not applicable
Clean Water Act (40 CFR 116.4): Sodium phosphate, dibasic - RQ 5000 lbs.
RCRA: Contains no RCRA regulated substances.
State Regulations:
California Prop. 65: No Prop. 65 listed chemicals are present in this product.
Identification of Prop. 65 Ingredient(s): None
California Perchlorate Rule CCR Title 22 Chap 33: Not applicable
Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710). CAS Number: Not applicable

Canadian Inventory Status: One or more ingredient(s) is not listed on the DSL/NDSL inventories. *EEC Inventory Status:* All ingredients used to make this product are listed on EINECS / ELINCS.

Australian Inventory (AICS) Status: All ingredients are listed.

New Zealand Inventory (NZIoC) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.

China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. Technical Judgment. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection, 1991. In-house information.

Complete Text of H phrases referred to in Section 3: H315 Causes skin irritation. H319 Causes serious eye irritation. *Revision Summary:* Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Date of MSDS Preparation:

Day: 08

Month: February *Year:* 2014

MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350

CCOHS Evaluation Note: It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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