

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

MSDS No: M02466

# SAFETY DATA SHEET

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Nitrate HR TNT Reagent A  
**Catalog Number:** TNT836A

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:** M02466  
**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 nitrate

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## 2. HAZARDS IDENTIFICATION

**GHS Classification:**  
**Hazard categories:** Flammable Liquids: Flam. Liq. 3  
**GHS Label Elements:**  
WARNING



**Hazard statements:** Flammable liquid and vapour.

**Precautionary statements:** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves / protective clothing / eye protection / face protection.

**HMIS:**

**Health:** 2

**Flammability:** 2

**Reactivity:** 0

**Protective Equipment:** X - See protective equipment, Section 8.

**NFPA:**

**Health:** 0

**Flammability:** 2

**Reactivity:** 0

**Symbol:** Not applicable

**WHMIS Hazard Classification:** Class B, Division 3 - Combustible liquids Class D, Division 2, Subdivision B - Toxic material (other toxic effects)

**WHMIS Symbols:** Flammable / Combustible Other Toxic Effects

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## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous Components according to GHS:**

Isopropanol

The following list contains the Material Safety Data Sheets you requested. Please scroll down to view the requested MSDS(s).

<u>Product</u>	<u>MSDS</u>	<u>Distributor</u>	<u>Format</u>	<u>Language</u>	<u>Quantity</u>
TNT836	TNT836A	Hach Company	ROWGHS	English	1
TNT836	TNT836R	Hach Company	ROWGHS	English	1

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Total Enclosures: 2

**CAS Number:** 67-63-0  
**Chemical Formula:** C<sub>3</sub>H<sub>8</sub>O  
**GHS Classification:**  
**Percent Range (Trade Secret):** 1.0 - 10.0  
**Percent Range Units:** weight / weight  
**PEL:** 400 ppm (980 mg/m<sup>3</sup>)  
**TLV:** 200 ppm (492 mg/m<sup>3</sup>)

**WHMIS Symbols:** Flammable / Combustible Other Toxic Effects  
**Hazardous Components according to GHS:** No

**Demineralized Water**

**CAS Number:** 7732-18-5  
**Chemical Formula:** H<sub>2</sub>O  
**GHS Classification:** Not a dangerous substance according to GHS.  
**Percent Range (Trade Secret):** 90.0 - 100.0  
**Percent Range Units:** weight / weight  
**PEL:** Not established  
**TLV:** Not established

**WHMIS Symbols:** Not applicable

**Other components, each**

**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

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#### 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. Give artificial respiration if necessary. Call physician.

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

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#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Combustible Liquid Can burn in fire, releasing toxic vapors.

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

**Extinguishing Media:** Water.

**Extinguishing Media NOT To Be Used:** Not applicable

**Fire / Explosion Hazards:** May react violently with: oxidizers Combustible liquid May ignite on contact with: heat sparks, flame, or other ignition sources

**Hazardous Combustion Products:** carbon monoxide, carbon dioxide.

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#### 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:** Absorb spilled liquid with non-reactive sorbent material. Stop spilled material from being released to the environment. Remove all ignition and spark-creating sources from the spill area.

**Clean-up Technique:** Absorb spilled liquid with non-reactive sorbent material. Incinerate material at a government approved hazardous waste facility. Decontaminate the area of the spill with a soap solution. Eliminate all sources of ignition.

**Evacuation Procedure:** Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: a gallon or more of liquid is spilled. If conditions warrant, increase the size of the evacuation.

**DOT Emergency Response Guide Number:** 127

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## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes skin clothing Do not breathe mist or vapors. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

**Storage:** Protect from: heat Keep away from: sparks, flames and other ignition sources

**Flammability Class:** Class II

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**

**Eye Protection:** chemical splash goggles

**Skin Protection:** 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 clothing Wash thoroughly after handling. Protect from: heat Keep away from: sparks, flames and other ignition sources

**TLV:** Not established

**PEL:** Not established

**For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:**

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear, colorless liquid

**Physical State:** Liquid

**Molecular Weight:** Not applicable

**Odor:** Alcoholic

**Odor Threshold:** Not determined

**pH:** 5.5

**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):** 0.95 g/cm<sup>3</sup>

**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:** 82° C (180° F)

**Vapor Pressure:** Not determined

**Vapor Density (air = 1):** Not determined

**Evaporation Rate (water = 1):** Not determined

**Volatile Organic Compounds Content:** 4-5%

**Flammable Properties:** Combustible Liquid Can burn in fire, releasing toxic vapors.

**Flash Point:** 26° C (78.8° F)

**Method:** Closed cup  
**Flammability Limits:**  
**Lower Explosion Limits:** Not determined  
**Upper Explosion Limits:** Not determined  
**Autoignition Temperature:** Not determined  
**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 determined

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## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.  
**Mechanical Impact:** None reported  
**Static Discharge:** Not applicable  
**Reactivity / Incompatibility:** Incompatible with: strong acids oxidizers  
**Hazardous Decomposition:** Heating to decomposition releases: carbon monoxide carbon dioxide  
**Conditions to Avoid:** Extreme temperatures Evaporation Contact with heat, sparks, open flames or other ignition sources.  
Exposure to air.

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## 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 = 83671 mg/kg  
ATE Dermal Rat LD50 = 230237 mg/kg  
ATE Inhalation Rat LC50 = 1180.5 mg/l  
**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:** Based on classification principles, the classification criteria are not met.  
**Eye Damage:** Based on classification principles, the classification criteria are not met.  
**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:** May cause: irritation of the mouth and esophagus Very large doses may cause: drunkenness nausea vomiting blood pressure problems rapid pulse and respirations  
**Inhalation:** May cause: irritation of nose and throat  
**Skin Absorption:** None Reported  
**Chronic Effects:** None reported  
**Medical Conditions Aggravated:** Pre-existing: Eye conditions Impaired pulmonary function such as obstructive airway diseases.

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information: --**  
No ecological data available for this product. Mobility in soil: No data available  
**Ingredient Ecological Information:** Isopropanol: 96 hr Pimephales promelas LC50 = 4200 mg/L; 48 hr Crustaceans LC50 = 1400 mg/L; Crangon crangon EC50 = 1099 mg/L; 72 hr Scenedesmus subspicatus ErC50 >1000mg/L.

2-Propanol: CEPA Statement: Persistent, not bioaccumulative or inherently toxic to aquatic organisms.

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### 13. DISPOSAL CONSIDERATIONS

**EPA Waste ID Number:** D001

**Special Instructions (Disposal):** Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. 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.

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### 14. TRANSPORT INFORMATION

**D.O.T.:**

**D.O.T. Proper Shipping Name:** Alcohol, N.O.S.

**Hazard Class:** 3

**Subsidiary Risk:** NA

**ID Number:** UN1987

**Packing Group:** III

**T.D.G.:**

**Proper Shipping Name:** Alcohol, N.O.S.

**Hazard Class:** 3

**Subsidiary Risk:** NA

**UN Number/PIN:** 1987

**Packing Group:** III

**I.C.A.O.:**

**I.C.A.O. Proper Shipping Name:** Alcohols, N.O.S.

**Hazard Class:** 3

**Subsidiary Risk:** NA

**ID Number:** UN1987

**Packing Group:** III

**I.M.O.:**

**Proper Shipping Name:** Alcohol, N.O.S.

**Hazard Class:** 3

**Subsidiary Risk:** NA

**ID Number:** UN1987

**Packing Group:** III

**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.

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### 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 Fire 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):** Not applicable

**304 EHS RQ (40 CFR 355):** Not applicable

**Clean Water Act (40 CFR 116.4):** Not applicable

**RCRA:** Contains RCRA regulated substances. See Section 13, EPA Waste ID Number.

**State Regulations:**

**California Prop. 65:** No Prop. 65 listed chemicals are present in this product.

*Identification of Prop. 65 Ingredient(s):* Not applicable  
*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:* All ingredients of this product are DSL Listed.

*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.

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## 16. OTHER INFORMATION

*References:* Air Contaminants, Federal Register, Vol. 54, No. 12, Thursday, January 19, 1989, pp. 2332-2983. In-house information. Technical Judgment. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Outside Testing.

*Complete Text of H phrases referred to in Section 3:* H226 Flammable liquid and vapour.

*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:* 07

*Month:* October

*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).

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**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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