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

| Product | MSDS | Distributor | Format | Language | Quantity |
|---|---|---|---|---|---|
| 204649 | N/A | Hach Company | ROWGHS | English | 1 |

Total Enclosures: 1

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

*MSDS No: M00851*

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

***Product Name:*** Nitrate Nitrogen Standard Solution
***Catalog Number:*** 204649

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:*** M00851
***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:*** Standard solution

## 2. HAZARDS IDENTIFICATION

This mixture is not classified as hazardous per GHS (UN publication ST/SG/AC.10/36/Add.3)

***GHS Classification:***
***Hazard categories:*** Not applicable
***GHS Label Elements:***
Not applicable

***Hazard statements:*** Not applicable
***Precautionary statements:*** Not applicable
***HMIS:***
***Health:*** 0
***Flammability:*** 0
***Reactivity:*** 0
***Protective Equipment:*** X - See protective equipment, Section 8.
***NFPA:***
***Health:*** 0
***Flammability:*** 0
***Reactivity:*** 0
***Symbol:*** Not applicable
***WHMIS Hazard Classification:*** Not applicable
***WHMIS Symbols:*** Not applicable

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

***Hazardous Components according to GHS:***
**Potassium Nitrate**

***CAS Number:*** 7757-79-1
***Chemical Formula:*** $KNO_3$
***GHS Classification:*** Ox. Sol. 3, H272; Acute Tox. 5-Orl, H303; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT Single 3, H335; Aq. Acute 3, H402
***Percent Range (Trade Secret):*** < 0.001

***Percent Range Units:*** weight / weight
***PEL:*** 15 mg/$m^3$ as inhalable dust; 5 mg/$m^3$ as respirable dust
***TLV:*** 10 mg/$m^3$ as inhalable dust; 3 mg/$m^3$ as respirable dust

***WHMIS Symbols:*** Oxidizing

**Chloroform, ACS**

***CAS Number:*** 67-66-3
***Chemical Formula:*** $CHCl_3$
***GHS Classification:*** Acute Tox. 4 -Orl, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Acute Tox. 4-Inh, H332; STOT Single 3, H336; Muta. 2, H341; Carc. 2, H351; Repr. 2, H361; STOT Rep. 2, H373; Aquatic Acute 3, H402
***Percent Range (Trade Secret):*** < 0.0001
***Percent Range Units:*** weight / weight
***PEL:*** Ceiling: 50 ppm (240 mg/$m^3$)
***TLV:*** 10 ppm (49 mg/$m^3$)

***WHMIS Symbols:*** Other Toxic Effects

***Hazardous Components according to GHS: No***

**Demineralized Water**

***CAS Number:*** 7732-18-5
***Chemical Formula:*** $H_2O$
***GHS Classification:*** Not a dangerous substance according to GHS.
***Percent Range (Trade Secret):*** > 99.0
***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:*** Flush eyes with water. Call physician if irritation develops.
***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 is not classified as flammable according to GHS criteria. 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:*** This product will not burn or explode. May react violently with: alkali metals strong acids strong bases
***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.
***Containment Technique:*** Stop spilled material from being released to the environment. Absorb spilled liquid with non-reactive sorbent material. Releases of this material may contaminate 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. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Decontaminate the area of the spill with a soap solution. If permitted by regulation, Flush reacted material to the drain with a large excess of water. Otherwise, Pick up spill for disposal and place in a closed container Dispose of in accordance with local, state and federal regulations or laws.
***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 Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.
***Storage:*** Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated place. Protect from: heat extreme temperatures freezing Keep away from: alkali metals acids / acid fumes. bases
***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:*** nitrile gloves
***Inhalation Protection:*** adequate ventilation
***Precautionary Measures:*** Avoid contact with: eyes Wash thoroughly after handling. Protect from: heat freezing Keep away from: alkali metals acids/acid fumes bases
***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 liquid
***Physical State:*** Liquid
***Molecular Weight:*** Not applicable
***Odor:*** Odorless
***Odor Threshold:*** Not applicable
***pH:*** 5.3
***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):*** 0.98
***Viscosity:*** 1.0 mPa∗s
***Solubility:***
***Water:*** Soluble
***Acid:*** Soluble
***Other:*** Soluble in alkali solutions and most polar organic solvents.
***Partition Coefficient (n-octanol / water):*** Not applicable
***Coefficient of Water / Oil:*** Not applicable
***Melting Point:*** 0 °C (32 °F)
***Decomposition Temperature:*** Not applicable
***Boiling Point:*** 100 °C (212 °F)
***Vapor Pressure:*** 17.5 mm Hg (2.27 kPa) at 20 °C (68 °F)
***Vapor Density (air = 1):*** 0.62
***Evaporation Rate (water = 1):*** 0.89
***Volatile Organic Compounds Content:*** Not applicable
***Flammable Properties:*** Material is not classified as flammable according to GHS criteria. 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 classifed 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.

## 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: alkali metals strong acids strong bases
***Hazardous Decomposition:*** None reported
***Conditions to Avoid:*** Extreme temperatures Excessive heat Freezing conditions Contact with acid or acid fumes
Incompatibles

## 11. TOXICOLOGICAL INFORMATION

***Toxicokinetics, Metabolism and Distribution:*** No information available for mixture.
***Toxicologically Synergistic Products:*** None reported
***Acute Toxicity:*** Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data Practically Non-toxic Based on classification principles, the classification criteria are not met.
***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):*** Based on classification principles, the classification criteria are not met.
An ingredient of this mixture is: IARC Group 2B: Experimental Carcinogen
Chloroform
An ingredient of this mixture is: NTP Listed Group 2B: Experimental Carcinogen
Chloroform
An ingredient of this product is an OSHA listed carcinogen.
Chloroform
***Symptoms/Effects:***
***Ingestion:*** No Effects Anticipated Practically non-toxic
***Inhalation:*** No effects anticipated
***Skin Absorption:*** No effects anticipated
***Chronic Effects:*** No effects anticipated
***Medical Conditions Aggravated:*** None reported

## 12. ECOLOGICAL INFORMATION

***Product Ecological Information:*** --
No ecological data available for this product. Based on classification principles, not classified as hazardous to the environment. No bioaccumulation potential Mobility in soil: Highly mobile
Method Used for Estimation of Aquatic Toxicity of Mixture Summation Method M-factor (Multiplier) for highly toxic ingredients: 1
***Ingredient Ecological Information:*** Potassium Nitrate: 96 hr Poecilia reticulata LC50 = 1378 mg/L; 48 hr Daphnia magana EC50 = 490 mg/L; 96 hr Gambus ia affinish LC50 = 22.5 mg/L; 72 hr Dapnia magna EC50 = 226 mg/L

Chloroform: 96 hr Pimephales promelas LC50 = 71 mg/L; 96 hr Oncorhynchus mykiss LC50 = 18 mg/L; 96 hr Lepomis macrochirus LC50 = 18 mg/L; 96 hr Poecilia reticulata LC50 = 300 mg/L; 48 hr Daphnia magna EC50 = 29 mg/L; 48 hr Desmodesmus subspicatus EC50 = 5

No ecological data available for the ingredients of this product.

CEPA Statement: Potassium Nitrate, Water: Persistent. Not bioaccumulative. Not inherently toxic to aquatic organisms.

CEPA Statement: Chloroform: Persistent. Not bioaccumulative. Inherently toxic to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

***EPA Waste ID Number:*** Not applicable

***Special Instructions (Disposal):*** Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. If permitted by regulation, Open cold water tap completely, slowly pour the reacted material to the drain. Otherwise, Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.

***Empty Containers:*** Working in a well-ventilated area, Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste. 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

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***Hazard Class:*** NA

***Subsidiary Risk:*** NA

***ID Number:*** NA

***Packing Group:*** NA

***T.D.G.:***

***Proper Shipping Name:*** Not Currently Regulated

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***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

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***Hazard Class:*** NA

***Subsidiary Risk:*** NA

***ID Number:*** NA

***Packing Group:*** NA

***I.M.O.:***

***Proper Shipping Name:*** Not Currently Regulated

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***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 does not meet 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):*** This product is not hazardous under 29 CFR.1910.1200 and therefore is not covered by Title III under SARA.

***S.A.R.A. Title III Section 313 (40 CFR 372):*** This product contains a chemical(s) subject to the reporting requirements of Section 313 of Title III of SARA.

Chloroform

***302 (EHS) TPQ (40 CFR 355):*** Chloroform 10,000 lbs.

***304 CERCLA RQ (40 CFR 302.4):*** Chloroform 10 lbs.

***304 EHS RQ (40 CFR 355):*** Chloroform - RQ 10 lbs.

***Clean Water Act (40 CFR 116.4):*** Chloroform - RQ 10 lbs.

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

***State Regulations:***

***California Prop. 65:*** WARNING - This product contains a chemical known to the State of California to cause cancer.

***Identification of Prop. 65 Ingredient(s):*** Chloroform

***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.

## 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. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information.

***Complete Text of H phrases referred to in Section 3:*** H272 May intensify fire; oxidiser. H302 Harmful if swallowed. Not applicable H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. .

***Revision Summary:*** Substantially Revised MSDS 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:*** 01

***Month:*** August

***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.**