

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>
245201	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: M00422

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium Nitrite

Catalog Number: 245201

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: M00422

Chemical Name: Nitrous acid, sodium salt

CAS Number: 7632-00-0

Additional CAS No. (for hydrated forms): Not applicable

Chemical Formula: NaNO₂

Chemical Family: Oxidizing Agents

Intended Use: Laboratory Reagent

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: Oxidizing Solids: Ox. Sol. 3 Acute Toxicity: Acute Tox. 3-Orl Serious Eye Damage/Eye Irritation: Eye Irrit. 2A . Germ Cell Mutagenicity: Muta. 2 Reproductive Toxicity: Repr. 2 Specific Target Organ Toxicity - Single Exposure: STOT SE 1 Hazardous to the Aquatic Environment: Aquatic Acute 1

GHS Label Elements:

DANGER



Hazard statements: May intensify fire; oxidiser. Toxic if swallowed. Causes serious eye irritation. . Suspected of causing genetic defects by inhalation. Suspected of damaging fertility. Suspected of damaging the unborn child. Causes damage to liver by inhalation. Very toxic to aquatic life.

Precautionary statements: Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing/combustible materials. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Handle environmental release according to local, state, federal, provincial requirements. Wear protective gloves / protective clothing / eye protection / face protection. 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. Collect spillage. Dispose of contents/container according to state, local, federal or national regulations.

HMIS:

Health: 3

Flammability: 2

Reactivity: 1

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

NFPA:

Health: 3

Flammability: 2

Reactivity: 1

Symbol: oxy

WHMIS Hazard Classification: Class C - Oxidizing materials Class D, Division 1, Subdivision B - Toxic material (immediate effects)

WHMIS Symbols: Acute Poison Oxidizing

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Sodium Nitrite

CAS Number: 7632-00-0

Chemical Formula: NaNO₂

GHS Classification: Ox. Sol. 3, H272; Acute Tox. 3 -Orl, H301; Eye Irritation 2A, H319; Acute Tox. 5-Inh, H333; Muta. 2, H341; Repr. 2, H361; STOT Single 1, H370; Aquatic Acute 1, H400

Percent Range (Trade Secret): >95.0

Percent Range Units: weight / weight

PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust

TLV: 5.6 mg/m³

WHMIS Symbols: Acute PoisonOxidizing

Hazardous Components according to GHS: No

Impurities

CAS Number: Not applicable

Chemical Formula: Not applicable

GHS Classification: Not applicable

Percent Range (Trade Secret): < 5.0

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 if irritation develops.

Skin Contact (First Aid): 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): Do not induce vomiting. Give 1-2 glasses 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. Strong oxidizer. Contact with combustible materials may cause a fire or explosion. Exposure to heat may promote violent decomposition. During a fire, this product decomposes to form toxic gases.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Evacuate area and fight fire from a safe distance.

Extinguishing Media: Alcohol foam. Carbon dioxide. Dry chemical. Water.

Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: Sodium nitrite explodes when heated to 537°C (1000°F) or on contact with cyanides, cellulose, lithium, or sodium thiosulfate. Do not expose to flames. May react violently with: combustible materials

Hazardous Combustion Products: Toxic fumes of: sodium oxides nitrogen oxides.

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. Cover spilled solid material with sand or other inert material.

Clean-up Technique: Remove all combustible materials from the spill area. Cover with an inert material, such as sand. Sweep up material. Work in an approved fume hood. Working in small batches, dilute with excess water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Filter to remove solids. 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 general area (50 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation. Deny access to unnecessary and unprotected personnel.

DOT Emergency Response Guide Number: 140

7. HANDLING AND STORAGE

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

Storage: Keep container tightly closed when not in use. Protect from: heat air moisture Keep away from: oxidizable materials

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use a fume hood to avoid exposure to dust, mist or vapor. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

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. lab coat

Inhalation Protection: laboratory fume hood

Precautionary Measures: Avoid contact during pregnancy/while nursing. Avoid contact with: eyes skin clothing Do not breathe: dust Wash thoroughly after handling. Use with adequate ventilation. Keep away from: oxidizable materials

TLV: 5.6 mg/m³

PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White crystals

Physical State: Solid

Molecular Weight: 69.00

Odor: Odorless

Odor Threshold: Not applicable

pH: 9

Metal Corrosivity:

Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.

Steel: Not applicable

Aluminum: Not applicable

Specific Gravity/ Relative Density (water = 1; air =1): 2.168

Viscosity: Not applicable

Solubility:

Water: 820 g/L

Acid: Decomposes.

Other: Methanol: 4.5 g/L; Ethanol: 3 g/L; Slightly soluble in ether and very soluble in ammonia.

Partition Coefficient (n-octanol / water): -3.7

Coefficient of Water / Oil: Not determined

Melting Point: 271 °C (520 °F)

Decomposition Temperature: > 320 °C (> 608 °F)

Boiling Point: Not applicable

Vapor Pressure: Not applicable
Vapor Density (air = 1): Not applicable
Evaporation Rate (water = 1): Not applicable
Volatile Organic Compounds Content: Not applicable
Flammable Properties: Material is not classified as flammable according to GHS criteria. Strong oxidizer. Contact with combustible materials may cause a fire or explosion. Exposure to heat may promote violent decomposition. During a fire, this product decomposes to form toxic gases.
Flash Point: Not applicable
Method: Not applicable
Flammability Limits:
Lower Explosion Limits: Not applicable
Upper Explosion Limits: Not applicable
Autoignition Temperature: 510 °C (950 °F)
Explosive Properties:
Not classified according to GHS criteria.
Oxidizing Properties:
Classified as oxidizer according to GHS.
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.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Mechanical Impact: Explodes when shocked or heated.
Static Discharge: Ignites on friction.
Reactivity / Incompatibility: Explodes on contact with: cellulose cyanides lithium sodium thiosulfate May react violently in contact with: combustible materials Incompatible with: aminoguanidine salts butadiene phthalic acid phthalic anhydride sodium amide sodium disulfite sodium thiocyanate urea wood
Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: nitrogen oxides sodium oxides
Conditions to Avoid: Contact with heat, sparks, open flames or other ignition sources. Exposure to air. Heating to decomposition. Moisture: substance is hygroscopic.

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available
Toxicologically Synergistic Products: None reported
Acute Toxicity: Toxicological Testing Route Data Given Below
Oral Rat LD50 = 85 mg/kg
Inhalation Rat LC50 = 5.5 mg/L/4 hr
Specific Target Organ Toxicity - Single Exposure (STOT-SE): Target Organs Circulatory system
Oral Human LDLo = 71 mg/kg/Methemoglobinemia, nausea or vomiting, coma. Oral Man LDLo = 321 mg/kg/Methemoglobinemia, cyanosis, and coma. Oral Man TDLo = 1.714 mg/kg/1 hr/Hypotension, regional, general arteriolar or venous dialtion.
Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Target Organs Circulatory system
Based on single exposure data. Inhalation Rat TCLo = 0.3 mg/m³/4 hr/30 days/Cyanosis, somnolence, weight loss; Oral Rat TDLo = 110 mg/kg/22 days/Methemoglobinemia
Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.
Eye Damage: Irritating to eyes.
Eye - Rabbit - 500 mg/24 hr/ Moderate irritation.
Sensitization: Based on classification principles, the classification criteria are not met.
CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Data supporting mutagenicity was found. Reproductive toxicity has been reported. Summary of findings reported in the literature follow.
Oral Mouse Cytogenetic Analysis 60 mg/kg/30 d; Oral Mouse Sperm Morphology 840 mg/kg/2 wk; Human HeLa Cell Unscheduled DNA Synthesis 6 mmol/L. Oral Rat TDLo = 110 mg/kg/Fetotoxicity, fetal death; Oral Mouse TDLo = 280 mg/kg/Developmental Abnormalities
IARC Listed: No
NTP Listed: No

O.S.H.A. Listed: No

Symptoms/Effects:

Ingestion: Toxic May cause: headache vomiting colic diarrhea muscular weakness dizziness collapse blood pressure problems cyanosis (a reduction of the blood's ability to carry oxygen, giving a bluish discoloration) convulsions coma respiratory paralysis death

Inhalation: Toxic Effects similar to those of ingestion.

Skin Absorption: Effects similar to those of ingestion

Chronic Effects: Chronic overexposure may cause symptoms similar to acute exposure.

Medical Conditions Aggravated: Pre-existing: Bone marrow diseases Cardiovascular diseases

12. ECOLOGICAL INFORMATION

Product Ecological Information: 96 hr Oncorhynchus mykiss LC50 = 0.11 mg/L; 96 hr Salmo gairdneri LC50 = 0.048 mg/L; 48 hr Cherax quadricornatus EC50 = 1.1 mg/l

Do not place in landfill. Recycle appropriately. Do not release into the environment. Rapidly biodegradable. No bioaccumulation potential Mobility in soil: Highly mobile

CEPA Categorization: Persistent Not Bioaccumulative Not inherently toxic to aquatic organisms

The nitrite ion is a component of the nitrogen cycle and is rapidly biodegradable via bacteria. Sodium nitrite is known to be metabolised by fish and has low bioaccumulation potential. Experimental log K_{ow} = -3.7; Estimated log K_{oc} = -1.9.

Ingredient Ecological Information: --

Not applicable

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: D001

Special Instructions (Disposal): Incinerate material at an E.P.A. approved hazardous waste facility.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste.

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: Sodium Nitrite

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Hazard Class: 5.1

Subsidiary Risk: 6.1

ID Number: UN1500

Packing Group: III

T.D.G.:

Proper Shipping Name: Sodium Nitrite

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Hazard Class: 5.1

Subsidiary Risk: 6.1

UN Number/PIN: 1500

Packing Group: III

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Sodium Nitrite

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Hazard Class: 5.1

Subsidiary Risk: 6.1

ID Number: UN1500

Packing Group: III

I.M.O.:

Proper Shipping Name: Sodium Nitrite

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Hazard Class: 5.1

Subsidiary Risk: 6.1

ID Number: UN1500

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.

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 Delayed (Chronic) Health Hazard Fire Hazard

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.

Sodium Nitrite

302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Sodium Nitrite: 100 lbs.

304 EHS RQ (40 CFR 355): Not applicable

Clean Water Act (40 CFR 116.4): Sodium Nitrite - RQ = 100 lbs. (45.4 kgs.)

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): None

California Perchlorate Rule CCR Title 22 Chap 33: No

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: TSCA Listed: Yes

CAS Number: 7632-00-0

Canadian Inventory Status: DSL Listed: Yes

EEC Inventory Status: EINECS Listed: Yes

Australian Inventory (AICS) Status: Listed

New Zealand Inventory (NZIoC) Status: Listed

Korean Inventory (KECI) Status: Listed

Japan (ENCS) Inventory Status: Listed

China (PRC) Inventory (MEP) Status: Listed

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. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. IARC Monographs on the Evaluation of the Carcinogenic Risks to Humans. World Health Organization (Volumes 1-42) Supplement 7. France: 1987. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Sixth Annual Report on Carcinogens, 1991. U.S. Department of Health and Human Services. Rockville, MD: Technical Resources, Inc. 1991. Technical Judgment. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Vendor Information. **Complete Text of H phrases referred to in Section 3:** H272 May intensify fire; oxidiser. H301 Toxic if swallowed. H319 Causes serious eye irritation. H341 Suspected of causing genetic defects. H361d Suspected of damaging the unborn child. H370 Causes damage to organs. H400 Very toxic to aquatic life.

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: 27

Month: January

Year: 2015

MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350

CCOHS Evaluation Note: This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). 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.

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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