



Material Safety Data Sheet

Sodium Nitrite Liquor, Technical

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Nitrite Liquor, Technical
OTHER/GENERIC NAMES: Sodium Nitrite, aqueous solution
PRODUCT USE: Industrial

MANUFACTURER: General Chemical, LLC
90 East Halsey Road
Parsippany, NJ 07054

General Chemical Performance Products Ltd.
277 Lakeshore Road, East, Suite #206
Oakville, Ontario L6J 1H9

FOR MORE INFORMATION CALL: 800-631-8050 **IN CASE OF EMERGENCY CALL:** 800-424-9300
US ONLY Customer Service **US ONLY** (CHEMTREC)
(Monday-Friday, 9:00am-4:30pm)
Outside the US 973-515-0900 (24 Hours/Day, 7 Days/Week)
(Monday-Friday, 9:00am-4:30pm) Customer Service (24 Hours/Day, 7 Days/Week) 613-996-6666
(CANUTEC)

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME

Sodium nitrite
Sodium nitrate

CAS NUMBER

7632-00-0
7631-99-4

WEIGHT %

28-44
0.1-20

Trace impurities and additional material names not listed above may appear in Section 15 of this MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

OSHA Hazard Communication Standard: *This product is considered hazardous under the OSHA Hazard Communication Standard.*

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: An odorless, clear to pale yellow liquid. May cause irritation to the skin, eyes and respiratory tract. Harmful and possibly fatal if swallowed in large amounts.

POTENTIAL HEALTH HAZARDS

SKIN: Liquid or mist contact may cause irritation.

EYES: Liquid or mist contact may cause irritation.

INHALATION: Inhalation of mist may cause irritation of the respiratory tract. Inhalation of large amounts of mist may cause systemic effects (see Ingestion). Contact with acids may cause the evolution of N₂O₃, which can cause severe and potentially fatal effects.

INGESTION: Ingestion may irritate the gastrointestinal tract. Ingestion of large amounts may cause poisoning. Symptoms include: conversion of hemoglobin to methemoglobin, producing cyanosis (blue skin); marked fall in blood pressure, leading to collapse, coma, and possibly death.

DELAYED EFFECTS: Under certain conditions, nitrite compounds may react with secondary amines to form potentially carcinogenic nitrosamines.



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6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (See section 8 for recommended personal protective equipment.)

Small spills: Cover with inert absorbent such as clay and shovel into clean containers for later disposal. Large spills: Dike up with inert absorbent, and mop or pump into clean containers for later disposal. Avoid contaminating sewers and waterways, and avoid contact with incompatible materials. Attempt to keep out of sewers.

Spills and releases may have to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING: (See section 8 for recommended personal protective equipment.)

Avoid contact with eyes, skin and clothing. Keep from contact with combustible materials. Maintain good personal hygiene and housekeeping.

STORAGE RECOMMENDATIONS:

Protect from physical damage. Store in a warm place, away from combustible materials and wooden floors. Keep tightly closed. Diking of storage tanks is recommended.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Local exhaust if misty conditions prevails. Keep incompatible materials out of hoods, ducts, etc.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:

For routine product handling or use, wear impervious apron and gloves and full work clothing, including long sleeved shirt and pants. For prolonged or repeated contact, wear full impervious clothing.

EYE PROTECTION:

Wear chemical safety goggles. Do not wear contact lenses.

RESPIRATORY PROTECTION:

Where conditions require it, use a NIOSH-approved respirator for solution mists, or nitrogen oxide gases, as applicable. Some exposures may require NIOSH-approved, self-contained breathing apparatus or an air-supplied respirator.

ADDITIONAL RECOMMENDATIONS:

Provide eyewash and washing facilities near use and handling areas.

EXPOSURE GUIDELINES

INGREDIENT NAME

No ingredients listed in this section.

ACGIH TLV

OSHA PEL

OTHER LIMIT

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:
None.



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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear to pale yellow liquid
PHYSICAL STATE: Liquid
MOLECULAR WEIGHT: 69 for NaNO_2
85 for NaNO_3
CHEMICAL FORMULA: $\text{NaNO}_2 + \text{NaNO}_3$ in water
ODOR: Odorless
SPECIFIC GRAVITY (water = 1.0): 1.3
SOLUBILITY IN WATER (weight %): Complete
Approximately 7.2 to 9.5 (1% solution)
BOILING POINT: 120C
MELTING POINT: -12C (Freezing point)
VAPOR PRESSURE: Not applicable
VAPOR DENSITY (air = 1.0): Not applicable
EVAPORATION RATE: Not applicable
% VOLATILES: Not applicable
FLASH POINT: Not flammable
(Flash point method and additional flammability data are found in Section 5.)

COMPARED TO: Not applicable

10. STABILITY AND REACTIVITY

NORMALLY STABLE (CONDITIONS TO AVOID):

Normally stable. Avoid heat, especially heating to dryness, which increases the probability and the hazard of oxidizing reactions.

INCOMPATIBILITIES:

Reducing agents, e.g. cyanides, thiocyanates, thiosulfates, ammonium salts: causes vigorous reactions, sometimes explosive. Some combustibles and organics and water-reactive substances, such as oleum: causes exothermic reactions. Acids: material decomposes even by weak acids with evolution of brown fumes of N_2O_3 . It is slowly oxidized to sodium nitrate when exposed to air.

HAZARDOUS DECOMPOSITION PRODUCTS:

If evaporated, the residue is a dangerous fire risk when heated to 1000F, and may explode. This residue is also likely to yield on heating, toxic brown fumes of nitrogen oxides. These are corrosive and oxidizing.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Sodium nitrite component:
LD₅₀ (oral, rat): 132 mg/kg
LD₅₀ (oral, rabbit): 186 mg/kg
Eye irritation, rabbit, 500 mg/24 hr; mild

Sodium nitrate component:
LD₅₀ (oral, rat): 1267 mg/kg



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DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS:

Multiple reproductive tests indicate that sodium nitrite is not teratogenic. Fetal toxicity has been demonstrated in pregnant animals fed toxic doses of sodium nitrite. This is due to the formation of methemoglobin.

OTHER DATA:

None

12. ECOLOGICAL INFORMATION

Sodium nitrite component:

17.1 ppm /24 hr / minnow / no effect / fresh water
7.5 ppm / 48 hr / mosquito fish / TLm / fresh water

13. DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? No

If yes, the RCRA ID number is: Not applicable

OTHER DISPOSAL CONSIDERATIONS:

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

US DOT HAZARD CLASS/PACKING GROUP: 9, PGIII

US DOT ID NUMBER: UN3082

PROPER SHIPPING NAME:

Environmentally hazardous substances, liquid, n.o.s. (contains sodium nitrite)

TDG HAZARD CLASS/PACKING GROUP:

9, PGIII

TDG ID NUMBER: UN3082

PROPER SHIPPING NAME:

Environmentally hazardous substances, liquid, n.o.s. (contains sodium nitrite)

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: All components Listed on TSCA Inventory of Chemical Substances



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OTHER TSCA ISSUES: Sodium nitrite requires export notification (Section 12b) and is subject to a SNUR if used in metalworking fluids (40 CFR 721.4740).

SARA TITLE III/CERCLA

"Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u> Sodium nitrite	<u>SARA/CERCLA RQ (lb)</u> 100	<u>SARA EHS TPQ (lb)</u> None
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Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: Immediate

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

<u>INGREDIENT NAME</u> Sodium nitrite	<u>COMMENT</u> None
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STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>INGREDIENT NAME</u>	<u>WEIGHT %</u>	<u>COMMENT</u>
No ingredients listed in this section.		

ADDITIONAL REGULATORY INFORMATION:

None

WHMIS CLASSIFICATION (CANADA):

D1B, D2B

Classified in accordance with WHMIS Controlled Product regulations.



FOREIGN CHEMICAL CONTROL INVENTORY STATUS:

All components listed on Canada (DSL), Europe (EINECS), Australia (AICS), Japan (ENCS), Korea (KECI), Philippines (PICCS), and China (IECSC).



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16. OTHER INFORMATION

CURRENT ISSUE DATE: April 4, 2008
PREVIOUS ISSUE DATE: December 10, 2007

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

Changes to sections 1, 14 and 16.

OTHER INFORMATION: NFPA: 2-0-1
 HMIS: 2-0-1

All information, statements, data, advice and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as "information") are believed to be accurate and reliable. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness or a particular purpose or any other matter, including, without limitation, that the practice or application of any such information is free of patent infringement or other intellectual property misappropriation. The Company providing this MSDS is not engaged in the business of providing technical, operational, engineering or safety information for a fee, and therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill and experience in the chemical industry. The Company providing this MSDS shall not be responsible or liable for the use, application or implementation of the information, provided herein, and all such information is to be used at the risk, and in the sole judgement and discretion, of such persons, their employees, advisors and agents. This material safety data sheet (MSDS) is offered for your information, consideration and investigation as required by federal hazardous products act and related legislation.