

Material Safety Data Sheet

Sodium Nitrite

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Nitrite

OTHER/GENERIC NAMES: Nitrous Acid, Sodium Salt, Sodium Nitrite (various grades)

PRODUCT USE: Food preservative, dye manufacturing, corrosion inhibition

MANUFACTURER: Duda Energy LLC
1112 Brooks St
Decatur, AL 35601

FOR MORE INFORMATION CALL: 256.340.4866
US ONLY Customer Service
(Monday-Friday, 9:00am-4:30pm)

IN CASE OF EMERGENCY CALL: 800.255.3924
US ONLY Chemtel
(24 Hours/Day, 7 Days/Week)

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>WEIGHT %</u>
Sodium nitrite	7632-00-0	>98

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: White to slightly yellow crystalline solid. Toxic if swallowed or dust is inhaled. Oxidizer: May ignite organic materials and react with other materials. Can decompose if mixed with acids or exposed to fire conditions, releasing toxic nitrogen oxides.

POTENTIAL HEALTH HAZARDS

SKIN: May cause irritation.

EYES: May cause irritation.

INHALATION: Dust may irritate nose and throat. Dusts are soluble and inhalation may result in toxic effects similar to ingestion.

INGESTION: May irritate mouth, esophagus and stomach. Although small quantities are used in food preparation, swallowing moderate amounts of sodium nitrite can result in serious toxic effects including death. Effects include nausea, weakness, cyanosis (blue skin), collapse and coma, possibly leading to death. Sodium nitrite interferes with the blood's ability to transport oxygen.

DELAYED EFFECTS: Sodium nitrite has no known delayed effects. (If sodium nitrite is used with amines found in certain cutting fluids, potentially carcinogenic nitrosamine compounds may be formed.)

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Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section.			

4. FIRST AID MEASURES

SKIN: Flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse.

EYES: Immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

INGESTION: Do not induce vomiting. Immediately give large quantities of water. Get medical attention immediately.

ADVICE TO PHYSICIAN: Sodium nitrite forms methemoglobin in the blood stream. Treat accordingly.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	Not flammable
FLASH POINT METHOD:	Not applicable
AUTOIGNITION TEMPERATURE:	Not applicable
UPPER FLAME LIMIT (volume % in air):	Not applicable
LOWER FLAME LIMIT (volume % in air):	Not applicable
FLAME PROPAGATION RATE (solids):	Not applicable
OSHA FLAMMABILITY CLASS:	Not applicable

EXTINGUISHING MEDIA:

Use flooding amounts of water or other agents. DO NOT use dry chemicals containing ammonium phosphate.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Material does not burn but is an oxidizing agent and will support combustion of other materials. Product decomposes above 608°F releasing toxic nitrogen oxides.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Wear self-contained breathing apparatus (SCBA) and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

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

Remove all sources of ignition. Ventilate area of leak or spill. Use non-sparking tools and equipment. Sweep or shovel spilled material into containers. Dispose of material according to local, state and federal authorities. Do not allow product or residues to enter waterways and/or any source of drinking water.

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

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7. HANDLING AND STORAGE

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

Avoid contact with skin and eyes. Do not breathe product dusts. Avoid contact with incompatible, combustible, organic or readily oxidizable materials.

STORAGE RECOMMENDATIONS:

Store in a cool, dry and well-ventilated area. Keep container tightly closed. Do not store on wooden floors. Isolate from combustible materials. Empty containers may contain product residues; observe all warnings and precautions listed for the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use local exhaust to keep airborne concentrations below the permissible exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: Wear rubber gloves and apron, long sleeved shirts, trousers and boots. If prolonged or repeated contact is anticipated, all clothing should be impervious to liquid.

EYE PROTECTION: Wear chemical safety goggles. Do not wear contact lenses.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

ADDITIONAL RECOMMENDATIONS: To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product. Eyewash and safety showers are recommended.

EXPOSURE GUIDELINES

INGREDIENT NAME

ACGIH TLV

OSHA PEL

OTHER LIMIT

No ingredients listed in this section.

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

None.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White to slightly yellow crystals
PHYSICAL STATE:	Solid
MOLECULAR WEIGHT:	69.0
CHEMICAL FORMULA:	NaNO ₂
ODOR:	None
SPECIFIC GRAVITY (water = 1.0):	2.17
SOLUBILITY IN WATER (weight %):	46% at 68°F
pH:	Approximately 9 (for aqueous solution)
BOILING POINT:	Decomposes above 608°F
MELTING POINT:	520°F
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.)

10. STABILITY AND REACTIVITY

NORMALLY STABLE (CONDITIONS TO AVOID):

Normally stable. Material slowly oxidizes to sodium nitrate when exposed to air. Avoid heat, flame, ignition sources, shock, friction and incompatibles.

INCOMPATIBILITIES:

Hazardous reactions can occur with acids, ammonium compounds, reducing agents (particularly cyanides, thiocyanates and thiosulfates). May ignite organic compounds and other combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of nitrogen (toxic and irritating).

HAZARDOUS POLYMERIZATION:

Will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

LD₅₀ (oral, rat) 132 mg/kg
LD₅₀ (oral, rabbit) 186 mg/kg
LC₅₀ (inhalation, rat) 5.5 mg/m³/4 hr
Eye irritation, rabbit, 500 mg/24 hr; mild

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.

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OTHER DATA:

None

12. ECOLOGICAL INFORMATION

17.1 ppm/24hr./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? Yes

If yes, the RCRA ID number is: D001, D003

OTHER DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with federal, state and local requirements.

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: 5.1 Oxidizer (6.1 Toxic subsidiary risk), PGIII
US DOT ID NUMBER: UN1500
PROPER SHIPPING NAME: Sodium nitrite

TDG HAZARD CLASS/PACKING GROUP: 5.1 Oxidizer (6.1 Toxic subsidiary risk), PGIII
TDG ID NUMBER: UN1500
PROPER SHIPPING NAME: 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: Listed on TSCA Inventory of Chemical Substances

OTHER TSCA ISSUES: Requires export notification (Section 12b). Subject to SNUR if used in metalworking fluids (40CFR721.4740).

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SARA TITLE III/CERCLA

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

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (lb)</u>	<u>SARA EHS TPQ (lb)</u>
Sodium nitrite	100	none

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, Reactive

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>	<u>COMMENT</u>
Sodium nitrite	Listed

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):

C, 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).

16. OTHER INFORMATION

CURRENT ISSUE DATE: February 2, 2006

PREVIOUS ISSUE DATE: December 13, 2005

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

Changes to sections 1, 2, 14, 15 and 16.

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

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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.