

# **SHANDONG GUANGHE TRADING CO.,LTD**

Address: New World Plaza 1603, Zibo City, Shandong Province, China

Tel/Fax: 86-533-6201892 Mobile/Whatsapp/Wechat: 86-15698066919

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## MATERIAL SAFETY DATA SHEET

### SODIUM NITRITE

#### SECTION 1 IDENTIFICATION

**Product Name:** Sodium nitrite

**Synonyms:** nitrous acid, sodium salt, anti-rust, "diazotizing salts", Erinitrit, Filmerine, "RIN 20".

**Recommended Use of the Chemical and Restrictions on Use:** Use to manufacture antifreeze, nitro-compounds, bleach.

**Supplier's Name/Address/Phone Number:** SHANDONG GUANGHE TRADING CO., LTD.

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#### SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Oxidizing Solids: 3;

Acute Toxicity (Oral) : 3 ;

Hazardous to the Aquatic Environment-Acute Hazard: 1.

GHS Label Elements, Including Precautionary Statements:



Signal Word(s): danger.

Hazard Statement(s): May intensify fire; Oxidizer; Toxic if swallowed; Very toxic to aquatic life.

Precautionary Statement(s):

Prevention :

Keep away from heat ;

Keep/Store away from clothing / combustible material ;

Wear protective gloves/protective clothing/eye protection/face protection ;

Clean all objects contaminated by this material, use water;

Take any precaution to avoid mixing with combustibles;

Do not eat, drink or smoke when using this product;

Avoid release to the environment.

Response :

Rinse mouth;

In case of fire: Use water to extinguish;

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If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre;

Collect spillage.

Storage :

Store locked up.

Disposal :

This material and its container must be disposed of as hazardous waste.

Other hazards which do not result in classification: /

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Chemical Abstract Service (CAS No)	Ingredient (Provided by Clients)
Sodium nitrite	7632-00-0	98.75%
Sodium nitrate	7631-99-4	1.00%

## SECTION 4 FIRST AID MEASURES

### **Description of necessary first aid measures**

#### **Inhaled:**

If fumes or combustion products are inhaled remove from contaminated area.

Lay patient down. Keep warm and rested. Transport to hospital, or doctor, without delay.

**Skin:** Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

**Eye:** Immediately hold eyelids apart and flush the eye continuously with running water, for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Swallowed:** IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:

INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

#### **Most Important Symptoms/Effects, Acute and Delayed:**

**Notes TO Physician:** The toxicity of nitrites result from their vasodilating properties and their propensity to form methaemoglobin. Most produce a peak effect within 30 minutes. Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methaemoglobin. Initial attention should be directed towards improving oxygen delivery, with assisted ventilation, if necessary. Hyperbaric oxygen has not demonstrated conclusive benefits. Institute cardiac monitoring, especially in patients with coronary artery or pulmonary disease. Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed. Naloxone, glucose and thiamine should be given if a multiple ingestion is suspected. Decontaminate using Ipecac Syrup for alert patients or lavage for obtunded patients who present within 2-4 hours of ingestion. Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue.(Cyanosis alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1%

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solution (10mg/ml) IV over 5 minutes; repeat, using the same dose if symptoms of hypoxia fail to subside within 1 hour.

**Indication of immediate medical attention and special treatment needed :** /

## **SECTION 5 FIREFIGHTING MEASURES**

**Extinguishing Media:** USE FLOODING QUANTITIES OF WATER. DO NOT use dry chemical, CO<sub>2</sub>, foam or halogenated-type extinguishers.

**Fire/Explosion Hazard:** Will not burn but increases intensity of fire. Heating may cause expansion or decomposition leading to violent rupture of containers. Heat affected containers remain hazardous. Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition. May emit irritating, poisonous or corrosive fumes. Decomposition may produce toxic fumes of: nitrogen oxides (NO<sub>x</sub>), metal oxides.

WARNING: May EXPLODE on heating!!!

**Fire Fighting:** Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves for fire only. Prevent, by any means available, spillage from entering drains or water course. Fight fire from a safe distance, with adequate cover. Extinguishers should be used only by trained personnel. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. If fire gets out of control withdraw personnel and warn against entry. Equipment should be thoroughly decontaminated after use.

## **SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, using the appropriate protective equipment. Avoid generating dusty conditions. Remove all sources of ignition.

## **SECTION 7 HANDLING AND STORAGE**

### **Procedure for Handling**

Avoid personal contact and inhalation of dust, mist or vapours.

Provide adequate ventilation.

Always wear protective equipment and wash off any spillage from clothing.

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Keep material away from light, heat, flammables or combustibles.

Keep cool, dry and away from incompatible materials.

Avoid physical damage to containers.

DO NOT repack or return unused portions to original containers. Withdraw only sufficient amounts for immediate use.

Contamination can lead to decomposition leading to possible intense heat and fire.

When handling NEVER smoke, eat or drink.

Always wash hands with soap and water after handling.

Use only good occupational work practice.

Observe manufacturer's storing and handling directions.

## **Suitable container**

DO NOT repack. Use containers supplied by manufacturer only.

For low viscosity materials

Drums and jerricans must be of the non-removable head type.

Where a can is to be used as an inner package, the can must have a screwed enclosure.

For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids:

Removable head packaging and cans with friction closures may be used.

Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages.

## **Storage Incompatibility**

Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.

Avoid storage with reducing agents.

Metal nitrites: are incompatible with chlorates, hypophosphites, iodides, mercury salts, sulfites, primary amines and amides, secondary amines and amides, ammonium salts, activated carbon, cyanogen compounds, thiocyanates, thiosulfates, cyanides, sodium amide, boron, acetanilide, antipyrine, tannic acid and cellulose react explosively with hydrazine and liquid ammonia react explosively following fusion with metal cyanides react (often) with salts of nitrogenous bases to produce an unstable corresponding nitrite salt.

## **SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters:**

**Appropriate engineering controls:** Local exhaust ventilation usually required. If risk of overexposure exists, wear an approved respirator. Correct fit is essential to obtain adequate protection an approved self-contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area.

### **Personal protective equipment**

**Eye/face protection:** Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

**Skin protection:** Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber. Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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**Respiratory protection:** Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	White solid.
<b>Odour</b>	/
<b>Odour Threshold</b>	/
<b>pH</b>	/
<b>Melting point/freezing point</b>	270°C
<b>Initial boiling point and boiling range</b>	320°C
<b>Flash point</b>	/
<b>Evaporation rate</b>	/
<b>Flammability (solid, gas)</b>	/
<b>Upper/lower flammability or explosive limits</b>	/
<b>Vapour pressure</b>	/
<b>Vapour density</b>	/
<b>Relative density</b>	2,261 g/cm <sup>3</sup>
<b>Water solubility</b>	82 g/100 mL (20°C)
<b>Partition coefficient: octanol/water</b>	-3.7。 /
<b>Autoignition temperature</b>	/
<b>Decomposition temperature</b>	/

## **SECTION 10 STABILITY AND REACTIVITY**

**Chemical stability:** /

**Possibility of hazardous reactions:** /

**Conditions to avoid:** High temperature.

**Incompatible materials:** Oxides of nitrogen, irritating and toxic fumes and gases.

**Hazardous decomposition products:** Toxic oxides of nitrogen may form in fires.

## **SECTION 11 TOXICOLOGICAL INFORMATION**

### **Acute health effects**

#### **Swallowed**

Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.

#### **Eye**

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of

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the conjunctiva (similar to windburn).

## **Skin**

There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

## **Inhaled**

Inhalation of dusts, generated by the material, during the course of normal handling, may produce severely toxic effects; these may be fatal. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

## **Chronic health effects:/**

Numerical measures of toxicity(such as acute toxicity estimates):

Oral LDLo: 71 mg/kg;

Oral TDLo: 14 mg/kg;

Oral (man) TDLo: 1.71 mg/kg/70m;

Oral (rat) LD50: 180 mg/kg;

Inhalation (rat) LC50: 5.5 mg/m<sup>3</sup>/4h.

## **SECTION 12 ECOLOGICAL INFORMATION**

**Toxicity:** Very toxic to aquatic organisms.

**Persistence and degradability:** /

**Bioaccumulative potential:** /

**Mobility in soil:** /

**Other adverse effects:** /

## **SECTION 13 DISPOSAL CONSIDERATIONS**

**Disposal methods:** Puncture containers to prevent re-use and bury at an authorized landfill. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

Recycle containers where possible, or dispose of in an authorized landfill.

## **SECTION 14 TRANSPORT INFORMATION**

**UN number:** 1500.

**UN proper shipping name:** Sodium Nitrite.

**Transport hazard class(es):** Class or division:5.1; Subsidiary risk:6.1.

**Packaging group:** III.

**Environmental hazards:**Yes.

**Special precautions for user:** /

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## **SECTION 15 REGULATORY INFORMATION**

### **Regulations:**

Sodium nitrate (CAS: :7632-00-0) is found on the following regulatory list : "China Classification and Labelling of Dangerous Chemical Substances", "China Dangerous Chemicals Names List", This safety data sheet is in compliance with the following national standards: GB16483-2008, GB13690-2009, GB6944-2005, GB/T15098-2008, GB18218-2009, GB15258-2009, GB6944-2005, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation, United Nations Regulations on the Transport of Dangerous Goods (UN RTDG)

## **SECTION 16 OTHER INFORMATION**

### **References**

“Model Regulations on the Transport of Dangerous Goods”

“The Globally Harmonized System of Classification and Labelling of Chemicals”

### **Form Date**

16-Feb-2012

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.