

# Deepak Nitrite Limited

<b>Material Safety Data Sheet</b>	<b>Sodium nitrate</b>
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## 1 Product And Company Identification :

Product Name	:	<b>Sodium Nitrate</b>
Other/Generic Names	:	Nitric Acid, Sodium Salt; Sodium Nitrate (various grades); Sodium nitrate,crystals; Nitratine; Soda niter; Chile saltpetre; Cubic nitre;
CAS No.	:	<b>7631-99-4</b>
Product use	:	Food industry, An auxiliary for many sectors of industry, e.g. build industrial chemicals, glass, metal, petrochemical etc.
Supplier		Deepak Nitrite Ltd. Aaditya-I, National Highway No. 8, Chhani Road, Vadodara - 390 024, India Manufacturing facilities at : Vadodara, Roha, Taloja & Hyderabad. Contact no. : +91-9904406400
For Chemical Emergency		Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887

## 2 Hazards Identification :

<b>GHS classification (Classification according to Regulation (EC) No 1272/2008)</b>	<b>Hazard Statements</b>
Oxidizing solid, Category 3	H272: May intensify fire; oxidizer.
<b>Health hazard: 1</b>	H315 Causes skin irritation.
<b>Flammability: 0</b>	H319 Causes serious eye irritation.
<b>Physical hazards: 1</b>	H335 May cause respiratory irritation.
Harmful solid, Category 3, oral	H302: Harmful if swallowed.

**EC classification**  
**(Classification according to**  
**Directive 67/548/EEC)**

**T : R8**  
**R22**  
**R36**

Contact with combustible material may cause fire.  
Harmful if swallowed.  
Irritating to eyes.

WGK 1 slightly water endangering

**Hazard pictograms**



**Signal word**

Warning

**3 Composition / Information On Ingredients :**

Chemical Formula	: NaNO <sub>3</sub>
Common name	: Sodium nitrate
Synonyms	: Nitric acid, sodium salt; Nitratine; Sodium saltpeter
Hill formula	NNaO <sub>3</sub>
Molecular weight	: 84.99 g/mol
CAS No.	: 7631-99-4
H S Code	: 3105 10 00
UN No.	: 1498
EINECS No.	: 231-554-3

**4 First Aid Measures :**

**After inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**After skin contact:** Wash off with plenty of water. Remove contaminated clothing.

**After eye contact:** Rinse out with plenty of water with eyelid held wide open. Call in ophthalmologist if necessary.

**If swallowed:** Give water to drink (two glasses at the most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20-40 g in 10% slurry) and consult a doctor as quickly possible.

**Notes to Physician:** Absorption of this product into the body may cause cyanosis. Moderate degrees of cyanosis need to be treated by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body is of utmost importance. If cyanosis is severe, intravenous injection of methylene blue, 1 mg/kg of body weight may be of value.  
Antidote: None reported.

**5 Fire Fighting Measures:**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool fire-exposed containers. Use water only!

**Specific hazards during fire fighting**

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of: nitrogen oxides

**Special protective equipment for fire-fighters**

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

**Further information**

Suppress (knock down) gases/Vapour/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. Use water spray to cool unopened containers.

**6 Accidental Release Measures :**

**Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**

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

Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7 Handling & Storage :**

**Precautions for safe handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

**Conditions for safe storage**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Do not store near combustible materials.

Hygroscopic.

## 8 Exposure Control / Personal Protection :

### Personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quality of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

### Eye protection

Face shield and safety glasses

### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Immediately change contaminated clothing. Apply skin-protective barrier cream.

Use adequate ventilation to keep airborne concentrations low.

## 9 Physical And Chemical Properties :

Appearance	: Form Solid
Colour	: White
Odour	: Odorless
pH	: 5.5 -8 (5 % in H <sub>2</sub> O, 25°C)
Boiling Point/range	: 380 <sup>0</sup> C @ 760 mm Hg
Melting point	: 308 <sup>0</sup> C
Flash Point	: No data available
Thermal decomposition	: >600 °C
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapor pressure	: 9.9E-17 hPa @ 25°C
Relative vapor density	: No data available
Density	: 2.26 g/cm <sup>3</sup> .(20 °C )
Bulk density	: 1200 kg/m <sup>3</sup> .
Solubility/qualitative	: Easily soluble in cold water, hot water.
Water solubility	: 817g/l water at 20°C
Specific gravity	: 2.26
Partition coefficient: n- Octanol / water	: Log Pow; -3.7 Method: OECD test guideline 107 No bioaccumulation is to be expected (log Pow <1)

**10 Stability And Reactivity :**

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

High temperatures, incompatible materials, exposure to air, combustible materials, organic material, exposure to moist air or water.

**Materials to avoid**

**A risk of explosion and/or of toxic gas formation exists with the following substances:**

Strong reducing agents, strong acids, amines, chlorates, finely powdered metals, hydrazine, liquid ammonia, amides (eg butyramide, diethyltoluamide, dimethyl formamide), cyanides, permanganates, hypophosphite, sulfites, tannic acid, carbon, antipyrine, sodium thiosulfate, ammonium salts, cellulose, acetanilide, iodides, mercury salts.

**Risk of ignition or formation of inflammable gases or vapors with:**

Butadiene

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NOx), Sodium oxides

**Hazardous Polymerization:** Will not occur.

Thermal decomposition: > 600°C

**11 Toxicological Information :**

Acute toxicity	: LD <sub>50</sub> Oral - RAT - 1267mg/kg LD <sub>50</sub> Oral - RBT - 2680 mg/kg ORL-CHD LDLO 22.5 mg kg <sup>-1</sup>
Acute oral toxicity	: ORL-MAN LD50 114 mg/kg ORL-CHD LD50 22500 mg/kg
Acute inhalation toxicity	: LC <sub>50</sub> rat Dose: 5.5 mg/l, 4 h (RTECS)
Irritation of the eyes	: Causes irritation
Irritation of the skin	: Causes irritation
RTECS#	: WC5600000
Carcinogenicity	: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA
Potential health effects	: <b>Inhalation:</b> May be harmful if inhaled. May cause respiratory tract irritation. <b>Ingestion:</b> Toxic if swallowed. <b>Skin:</b> May be harmful if absorbed through skin. May cause skin irritation. <b>Eyes:</b> May cause eye irritation.

**12 Ecological Information :**

**Ecotoxicity :**

Acute aquatic toxicity : LC<sub>50</sub> 96 h fish( mg,l<sup>-1</sup>): 11060 ppm( stickleback )  
Fish BOD 0.1 kg/kg

**WGK** WGK 1 slightly water endangering

**Persistence and degradability :**

Biodegradability : The methods for determining the biological degradability are not applicable to inorganic substances.

: Partition coefficient: n-octanol/water: Log Pow: -3.7  
Method: OECD Test guideline 107  
No bioaccumulation is to be expected (log Pow <1).

Additional ecological information : Do not allow to enter water, waste water, or soil.

Other adverse effects : Very toxic to aquatic organisms.

**13 Disposal Considerations :**

**Product**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**Contaminated packaging**

Dispose of as unused product.

**14 Transport Information :**

**UN No. : 1498**

**Hazard Class : 5.1**

**Packing Group : III**

Proper shipping name : Sodium nitrate

Declaration for land shipment (rail road and road) ADR, RID: UN 1498 Sodium nitrate, 5.1, III

**DOT (US)**

UN-Number: 1498 Class: 5.1 Packing group: III

Proper shipping name: Sodium nitrate

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN-Number: 1498 Class: 5.1 Packing group: III EMS-No: F-A, S-Q

Proper shipping name: SODIUM NITRATE

Marine pollutant: No

**IATA**

UN-Number: 1498 Class: 5.1 Packing group: III

Proper shipping name: Sodium nitrate

Packing instruction, passenger : 516, Maximum quantity 25 Kg

Packing instruction, cargo : 518, Maximum quantity : 100 Kg

**15 Regulatory Information :****Safety information according to GHS**

Hazard Statement(s) : H272 May intensify fire; oxidiser.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

Precautionary Statement(s) : P220 Keep/Store away from clothing/ combustible materials.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Signal word : Warning

Hazard Pictogram(s) :



RTECS : WC 5600000

Storage class : 5.1 B Oxidising agents (TRG 515 Group 2+3)

WGK : WGK 1 slightly water endangering

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**Labeling according to EC Directives**

Symbol(s): : O Oxidizing  
X Harmful

Risk phrase(s): : R8: Contact with combustible material may cause fire.  
R22: Harmful if swallowed.  
R36: Irritating to eyes.

Safety phrase(s): : S22 Do not breathe dust.  
S24 Avoid contact with skin.  
S41 In case of fire and/or explosion do not breathe fumes.

CAS No. #7631-99-4 is listed on Canada's DSL list, AICS, ENCS, IECSC, PICCS, KECI

Other regulations : Take note on Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

**16 Other Information:**

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**DISCLAIMER:** Deepak Nitrite Ltd. provides the information contained herein in good faith but makes no representation as to comprehensiveness or accuracy. This document is only as a guide to a properly trained person, for the appropriate precautions and handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The data does not signify any warranty with regard to the product's properties.