


Section 1 : Chemical Product and Company Identification	
1.1 Product identifiers	
Product Name:	Sodium Nitrite
1.2 Other means of identification	
Other names	Nitrous Acid, Sodium Salt; Sodium Nitrite (various grades)
CAS No.	7632-00-0
REACH No.	01-2119471836-27-0003
EC number	231-555-9
Index no.	
1.3 Recommended use of the chemical and restrictions on use	
Identified uses	Food preservative, dye manufacturing, corrosion inhibition, antioxidants for synthetic polymers, heat transferring agents, stabilizers, surface-active agents
Uses advised against	Food additives
1.4 Supplier's details	
Company	Deepak Nitrite Ltd. Aaditya-I, Chhani Road, Vadodara - 390 024, India Manufacturing facilities at : Vadodara, Dahej, Roha, Taloja & Hyderabad. Web : www.godeepak.com E.mail : customer.dnl@godeepak.com
1.5 Emergency phone number	
	In case of Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Within USA & Canada: +1-800-424-9300, Outside USA & Canada: +1 703-527-3887 Contact no. : +91-9904406400

Section 2 : Hazards Identification	
2.1 Classification of the substance or mixture	
<p>(Classification according to Regulation (EC) No 1272/2008) Oxidizing solid, Category 3, H272 May intensify fire, Oxidizer Acute toxic, Category 3 H301 Toxic if swallowed. Eye irritation category 2 H319 Cause serious eye irritation. Acute aquatic toxicity category 1, H400 Very toxic to aquatic life.</p> <p>EC classification (Classification according to Directive 67/548/EEC) T; R8 Contact with combustible material may cause fire. R25. Toxic if swallowed R36 Irritating to eye. R50 Very toxic to aquatic organism</p>	
2.2 Label elements including precautionary statements	
Pictograms	
Signal word	Danger
Hazard statement(s)	H272: May intensify fire; oxidizer. H301 Toxic if swallowed.



		H319 Causes serious eye irritation. H400 Very toxic to aquatic life.
Precautionary statement(s)		
Prevention		P210 Keep away from heat. P220 Keep/Store away from clothing/combustible materials. P264 Wash hands, forearms, and other exposed areas thoroughly after . handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection/face protection.
Response		P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER . or doctor / physician. P305+P351+P338 If in eye: Rinse cautiously with water for several minutes . Remove contact lenses, if present and easy to do. . Continue rinsing. P337+P313 If eye irritation persists, get medical advice/ attention. P330 Rinse mouth. P321 Specific treatment (See First Aid Section 4 of SDS
Storage		P403+P233 Store in a well-ventilated place. Keep container tightly closed.
2.3 Other hazards which do not result in classification		
		Exposure may aggravate those with pre-existing eye, skin or respiratory conditions. Exposure of nitrites via ingestion that result in endogenous nitrosation are classified by IARC as a Group 2A probable human carcinogen. This product is not anticipated to be available for oral exposure which would result in endogenous nitrosation under normal condition of use or foreseeable emergencies, and is therefore not classified as a carcinogen.

Section 3 : Composition and Information on ingredients				
3.1 Substances				
	Molecular formula	NaNO ₂		
	Molecular weight	69.00 g/mol		
	Component	CAS Number	EC number	Concentration
	Sodium Nitrite	7632-00-0	231-555-9	> 99%

Section 4 : First Aid measures		
4.1 Description of necessary 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 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.
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 to 40 gram in 10% slurry) and consult a doctor as quickly as possible.
Note 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. Through 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.

4.2	Most important symptoms / effects, acute and delayed
	After absorption: Nausea, narcosis, Cyanosis After absorption of large quantities: Headache, Vomiting, Unconsciousness, increase in heart rate, depressed respiration, collapse, Methemoglobinemia
4.3	Indication of immediate medical attention and special treatment needed
	No data available

Section 5 : Firefighting measures	
5.1	Extinguishing Media
	Suitable extinguishing media
	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool fire-exposed containers.
	Unsuitable extinguishing media
	Use of heavy stream of water may spread fire.
5.2	Specific hazards arising from the chemical
	Nitrogen oxides (NO _x), Sodium oxides
5.3	Special protective actions for fire-fighters
	Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

Section 6 : Accidental Release Measures	
6.1	Personal precautions, protective equipment and emergency procedures
	Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas. <i>For personal protection see section 8.</i>
6.2	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.
6.3	Methods and materials for containment and cleaning up
	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. <i>Store and dispose of according to local /national regulations (see section 13).</i>
6.4	Reference to other sections
	Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

Section 7 : Handling and Storage	
7.1	Precautions for safe handling
	Avoid contact with skin and eyes. 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. <i>For precautions see section 2.2.</i>
7.2	Conditions for safe storage, including any incompatibilities
	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Do not store near combustible materials. Hygroscopic.

Section 8 : Exposure Control / Personal Protection			
8.1	Control parameters / Occupational Exposure limit values		
	Endpoint	Threshold level	Protection goal, route of exposure
	DNEL	2.0 mg/m ³	Human, inhalator
8.2	Exposure controls / Appropriate engineering controls		
	Local exhaust ventilation to keep low dust environment		
8.3	Individual protection measures, such as Personal Protective Equipment (PPE)		



	Skin Protection	Complete suit protection against chemical, The type of protective equipment must be selected according to the amount and concentration of the dangerous substance at the workplace.
	Hand Protection	Handle with gloves. The selected protective gloves which are satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
	Eye/Face Protection:	Use face shield and safety glasses. For Face and eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU) to be used.
	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).
	Hygiene measures	Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Immediately change contaminated clothing. Use adequate ventilation to keep airborne concentrations low.

Section 9 : Physical and Chemical Properties		
9.1 Information on basic physical and chemical properties		
a)	Appearance	Form Solid
b)	Colour	Slightly yellow
c)	Odour	Odourless
d)	pH	8-9 (100g/l H ₂ O, 20°C)
e)	Boiling Point/range	320° C @ 760 mm Hg (Decomposition)
f)	Melting point	280° C (decomposition)
g)	Flash Point	No data available
h)	Lower explosion limit	No data available
i)	Upper explosion limit	No data available
j)	Vapor pressure	9.9E-17 hPa @ 25°C
k)	Relative vapor density	No data available
l)	Bulk density	1200 kg/m ³
m)	Solubility/qualitative	Easily soluble in cold water, hot water.
n)	Water solubility	820 g/L water at 20°C
o)	Partition coefficient (n- Octanol / water)	Log Pow: -3.7 Method: OECD test guideline 107 No bioaccumulation is to be expected (log Pow <1)
9.2 Other safety information		
a)	There is no additional information	

Section 10 : Stability and reactivity	
10.1 Reactivity	
	Oxidizer: increase the burning rate of combustible materials.
10.2 Chemical Stability:	
	The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
10.3 Possibility of hazardous reactions	
	Violent reaction with combustible material. Strong reducing agents, strong acids, amines, chlorates, finely powdered metals, hydrazine, liquid ammonia, amides (e.g. butyramide, diethyltoluamide, dimethyl formamide), cyanides, permanganates, hypophosphite, sulphites, tannic acid, carbon, antipyrine, sodium thiosulfate, ammonium salts, cellulose, acetanilide, iodides, mercury salts.

10.4	Conditions to Avoid:
	High temperatures, incompatible materials, combustible materials, organic material, exposure to moist air or water.
10.5	Incompatible Materials
	Strong oxidizing agent. reducing agents, strong acids, amines, powdered metals, liquid ammonia, humidity, aluminum, Cyanides, combustible materials, Ammonium salts.
10.6	Hazardous Decomposition Products:
	Hazardous decomposition products formed under fire conditions. - Sodium oxides, nitrogen oxides (NOx)

Section 11 : Toxicological Information:	
11.1	Information on toxicological effects
a)	Acute toxicity
	Oral LD ₅₀ - rat - 85 mg/kg
	Inhalation: LC ₅₀ Inhalation - rat - 4 h - 5,5 mg/m ³
	Dermal: No data available
b)	Skin corrosion/irritation
	Prolong exposure may cause skin irritation
c)	Serious eye damage/eye irritation
	May cause eye irritation. Contact causes severe irritation with redness and swelling of the conjunctiva.
d)	Respiratory or skin sensitization
	May be harmful if inhaled. Prolonged exposure may cause respiratory tract and skin irritation.
e)	Germ cell mutagenicity
	No data available.
f)	Carcinogenicity
	IARC: 2A- Group 2A: Probably carcinogenic to human
g)	Reproductive toxicity
	No data available
h)	Specific target organ toxicity (STOT) - single exposure
	No data available
i)	Specific target organ toxicity (STOT) - repeated exposure
	Liver
j)	Aspiration hazard
	No data available
11.2	Additional Information
	RTECS : RA1225000

Section 12 : Ecological Information	
12.1	Toxicity
	LD50 Oral Rat 85 mg/Kg LC50 Inhalation Rat 5.5 mg/l/ 4 h LC ₅₀ Species: Oncorhynchus mykiss (rainbow trout) Dose: 0.09 – 0.13 mg/l Exposure time: 96 h (ECOTOX Database)
12.2	Persistence and Degradability
	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).
12.3	Bio accumulative potential
	No data available



12.4	Mobility in soil
	No data available
12.5	Other adverse effects
	No data available
12.5	Results of PBT and vPvB assessment
	This substance /mixture contains no components considered to be either persistent, bio-accumulative, and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at level of 0.1% or higher.
12.6	Other adverse effects
	Very toxic to aquatic life.

Section 13 : Disposal considerations	
13.1	Disposal Methods
a)	Product
	Dispose of contents/container in accordance with local/regional/national/international regulations. This is hazardous to the aquatic environment. Keep out of sewers and waterway. Do not use container for any other purpose. Containers retain hazardous materials.
b)	Contaminated packaging
	Dispose of as unused product.

Section 14 : Transport information			
14.1	UN number		
	ADR/RID: 1500	IMDG: 1500	IATA: 1500
14.2	Proper Shipping Name		
	ADR/RID: Sodium Nitrite	IMDG: Sodium Nitrite	IATA: Sodium Nitrite
14.3	Transport hazard class(es)		
	ADR/RID: 5.1 (6.1)	IMDG: 5.1 (6.1)	IATA: 5.1 (6.1)
14.4	Packaging group		
	ADR/RID: III	IMDG: III	IATA: III
14.5	Environmental hazards		
	ADR/RID: Marine pollutant	IMDG: Marine Pollutant	IATA: N/A
14.6	Special precautions for user		
	No data available		
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code		
	No data available		

Section 15 : Regulatory information		
15.1	Safety, health and environmental regulations specific for the product in question	
	<p>Listing of substance for applicability of various regulations / National inventories:</p> <p>Safety phrase(s) S22 Do not breath dust. S24 Avoid contact with skin. S41 In case of fire and/or explosion do not breathe fumes.</p> <p>NFPA Health :3 Material that, under emergency conditions, can cause serious or permanent injury. Fire :0 Materials that will not burn under typical conditions, including intrinsically noncombustible materials such as concrete, stone and sand. Reactivity: 1 Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures. Specific Hazard : OX-Materials that possess oxidizing properties.</p>	
	Regulations / National inventories	Status
	AICS Australian Inventory of Chemical Substances	Listed

	DSL	Canadian Domestic Substances List	Listed
	EINECS (EINECS)	European Inventory of Existing Commercial Chemical Substance	Listed
	ELINCS	European List of Notified Chemical Substances	Not listed
	KECI	Korea Existing Chemical Inventory	Listed
	NZIoC	New Zealand Inventory of Chemicals	Listed
	PICCS	Philippine Inventory of Chemicals and Chemical Substances.	Listed
	ENCS	Japanese Existing and New Chemical Substances Inventory	Listed
	PDSCL	Japan Poisonous and Deleterious Substances Control Law	Listed
	IECSC China	Inventory of Existing Chemical Substances Produced or Imported in China	Listed
	TSCA	United States Toxic Substances Control Act	Listed
	SVHC	European Candidate List of Substance of Very High Concern	Not listed
	NLP	Europe No longer Polymers List	Not listed
	INSQ	Mexican National Inventory of Chemical Substances.	Listed
15.2	Chemical safety assessment		
	<i>Product a chemical safety assessment was not carried out for this product.</i>		

Section 16 : Other information	
16.1	Abbreviations and acronyms
	<ul style="list-style-type: none"> • <i>ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</i> • <i>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road</i> • <i>CAS: Chemical Abstracts Service</i> • <i>CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</i> • <i>CMR : Carcinogenic, Mutagenic or toxic for Reproduction</i> • <i>DGR : Dangerous Goods Regulations (see IATA/DGR)</i> • <i>DNEL : Derived No Effect Level</i> • <i>EC50: Effective Concentration 50%</i> • <i>EINECS : European Inventory of Existing Commercial Chemical Substances</i> • <i>GHS : Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations</i> • <i>IATA : International Air Transport Association</i> • <i>IATA/DGR : Dangerous Goods Regulations (DGR) for the air transport (IATA)</i> • <i>ICAO International Civil Aviation Organization</i> • <i>IMDG : International Maritime Dangerous Goods Code</i> • <i>Index number : Identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</i> • <i>LC50: Lethal Concentration 50%</i> • <i>LD50: Lethal Dose 50%</i> • <i>MARPOL : Marine Pollutant as per International Convention for the Prevention of Pollution from Ships</i> • <i>REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals</i> • <i>RID: Regulation concerning the International Carriage of Dangerous Goods by Rail</i> • <i>STEL: Short term exposure limit</i> • <i>VOC : Volatile Organic Compounds</i> • <i>vPvB : very Persistent and very Bio accumulative</i>



16.2 Key literature references and sources for data	
	<p>a) Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU</p> <p>b) Regulation (EC) No. 1272/2008 (CLP, EU GHS)</p> <p>c) Dangerous Goods Regulations (DGR) for the air transport (IATA)</p> <p>d) International Maritime Dangerous Goods Code (IMDG)</p>
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Revision Date	01-June-2020
Revision Summary	This safety datasheet has been prepared according to the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), and complies with the requirements of Regulation (EC) No. 1907/2006.
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End of SDS