

Deepak Nitrite Ltd



Technical Data Sheet

Sodium Nitrite (Domestic)

1. Introduction

Sodium nitrite is a pale, straw-colored, granular or flake material that is soluble in water upon heating. It is stable in neutral or alkaline solutions, but decomposes in acid solutions to form unstable nitrous acid.

1. Product: Sodium Nitrite
2. CAS No: 7632-00-0
3. Molecular Formula: NaNO_2
4. Molecular Weight: 68.99

2. Physical Properties:

Physical state: solid

Appearance: Odorless white to slightly yellowish crystalline powder

Melting Point : 271 °C

Stability: The product, stored in shaded area/ Go down, is stable at ambient temperature for five years

Specific Gravity: 2.16 g/cm³

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Solubility in water at 25° C:

Temperature ° C	Solubility g/100g H ₂ O	Concentration % w/w
0	71.2	41.6
10	75.1	42.9
20	80.8	44.7
30	87.6	46.7
40	94.9	48.7
60	111	52.6
80	133	57.1
100	160	61.5

Sodium Nitrite is very hygroscopic and highly soluble in water. It has a negative heat of solution of 14.9 kJ/mole at 20 degree C. The solution will produce a cooling effect.

Specific Gravity of pure Sodium Nitrite (99% Pure) in aqueous solution

% NaNO ₂	Specific Gravity at 25° C
10	1.065
20	1.136
30	1.214
40	1.295
46.4	1.345

Viscosity of pure Sodium Nitrite Liquor (40%)

Temperature ° C	Viscosity Cps
20	2.9
25	2.65
50	1.5

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3. Product Quality Specification:

Sr Number	Parameter	Standard Grade Un coated	Standard Coated grade	Liquor 25 % Min	Liquor 37 % Min
01	Physical Appearance	White or Slightly yellowish crystalline powder	White or Slightly yellowish crystalline powder	Slightly hazy greenish yellow solution	Greenish yellow Slightly hazy solution
02	Purity on Dry basis	99.0 % Min	99.0 % Min	25.0 % Min	37.0 % Min
03	Loss on Drying	0.5 % Max	0.5 % Max	--	--
04	Alkalinity as Na ₂ CO ₃	0.2 % Max	0.2 % Max	0.5 % Max	0.2 % Max
05	Chloride as Cl	0.05 % Max	0.05 % Max	0.2 % Max	0.03 % Max
06	Sodium Nitrate	1.0 % Max	1.0 % Max	4.0 % Max	2.0 % Max
07	Water Insoluble		0.05 % Max	--	--
08	Sulphate as SO ₄		--	--	--
09	Iron As Fe		0.002 % Max	0.005 % Max	0.002 % Max
10	Heavy Metal As Pb		0.005 % Max	--	--
11	Clarity of 40 % Aq Solution		Clear solution after 15 min	--	--
12	Anticaking agent	--	0.2 % Max	--	--

Our products are not meant for use as food or drug additives.
Anticaking Agent use in coating is /naphthalene sulphonate base product Petro

4. Packing Information:

Sr. Number	Grade	Packing	Secondary Packing
01	Standard Grade - Uncoated	25 /50 Kg HDPE woven bags with LDPE liner	-- --
02	Standard Grade -coated	25 /50 Kg HDPE woven bags with LDPE liner	-- --

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03	Liquor		In Tanker
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DNL Can customize packing for different quantities.

5.PRODUCT USES

1)Dyes and Pigments :

It is basic raw material for azo dyes and pigments. It is used for diazotization of amines

2) Agrochemicals & Pharmaceuticals :

It is used as an intermediate for lot of A P I and Agrochemicals

3) Metallurgy & Heat Transfer :

It is used as an accelerator in phosphating which is a major component in metal treatment in Automobile industry.

Under the heat treatment is is used in combination with 45 % Sodium Nitrite along with Potassium Nitrate and Sodium Nitrate. These are used for quench hardening and tempering steel. This mixture is also used as heat transfer salt.

4) Rubber Chemicals :

Used for manufacturing Di Nitroso Penta Methylene Tetra amine (DNPT) a product used for manufacture of rubber based (Hawaii) foot wear.

5) Corrosion Inhibitor :

The product is recommended as an additive for concrete and gypsum to inhibit corrosion of iron reinforcement

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6. Regulatory Information :-

Particulars	Information	Pictogram
Hazard Class	5.1	
Label	Oxidizer	
Subsidiary Label	Toxic	
UN Number	1500	
Proper shipping Name	Sodium Nitrite	
Packing Group	III	

LIQUOR :

Particulars	Information	Pictogram
Hazard Class	9	
Label	Miscellaneous	
Subsidiary Label	Not Applicable	
UN Number	3082	
Proper shipping Name	Environmentally Hazardous substance , Liquid N. O. S. (Contains Sodium Nitrite)	
Packing Group	III	

REACH Details :-

Sodium Nitrite - 05-2115859862-32-0000

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7. PRODUCT SAFETY INFORMATION :

Sodium nitrite may irritate the skin or eyes. Although it is used in small amounts as a food preservative, direct ingestion can irritate the mouth, esophagus or stomach, cause other toxic effects and can even be fatal. Inhaling sodium nitrite dust can irritate the nose, throat or lungs. Inhaling large amounts of dust, or mist can cause acute toxic effects and can be fatal.

As with any chemical, sodium nitrite requires care in handling. Anyone responsible for the procurement, use or disposal of this product should familiarize himself and those handling the product with the appropriate safety and handling precautions. This information is available in the Material Safety Data Sheet, which may be obtained by contacting our Customer Service Group.

8. Manufacture Site :

Deepak Nitrite Ltd.
4-12 GIDC Chemical Complex
Nandesari
Dist. Vadodara - 391 340
Gujarat
India

9. Corporate Headquarter: :

Deepak Nitrite Ltd.
Aaditya-I, National Highway No. 8, Chhani Road,
Vadodara - 390 024,
India

10. 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

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Disclaimer :

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of our knowledge and belief, but is not guaranteed to be so. The information is provided without any representation of warranty, expressed or implied, regarding the accuracy or correctness. It is the user's

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