

Technical Data Sheet

Sodium Nitrate

Product : Sodium Nitrate

 Chemical Formula
 : NaNO₃

 Molecular Weight
 : 84.99

 EC No.
 : 231-554-3

 CAS No.
 : 7631-99-4

General Information:

Sodium nitrate are fine crystalline white slight hygroscopic odourless powder that is soluble in water upon heating. It is stable in neutral or alkaline solutions

Physical properties:

Parameters		
Physical state	Solid	
Appearance	White crystalline powder	
Melting point	307 °C	
Stability	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Do not store near combustible materials.	
Specific Gravity	2.257g/cm3	
Solubility water	780 gpl (At 15 C)	

Solubilities of NaNO₃ in Water:

Substance	Formula	Phase	Temp °C	%solubility
Sodium Nitrate			0	73
			10	80
		NO ₃ Solid phase	20	88
			30	95
			40	104
	NaNO₃		50	114
			60	124
			70	NA
		80	148	
			90 NA	NA
			100	180



Technical Data Sheet

Substance	Formula	Temp °C	wt.%NaNO3 satd.	Density of salt. solution
			Solution	
		-18.1	38.07	NA
		-9.9	39.8	NA
		0	42.23	1.3532
Sodium		10	44.54	1.3683
		20	46.8	1.3834
		30	49.02	1.3986
	NaNO₃	40	51.2	1.4139
Nitrate		60	55.48	1.4447
		80	59.67	1.4759
		100	63.77	1.5074
		110	65.8	1.5231
		119	67.62	1.5374
		136	71.5	NA

Product quality specification:

Sr Number	Parameter	Standard Grade Un coated	Technical Grade Uncoated grade	Std grade coated grade
01	Physical Appearance	White or slightly off white to light cream colour powder.	White or slightlyoff white to lightcream colour powder.	White or slightly off white to light cream colour powder.
02	Purity on Dry basis	99.00 %w/w Min.	99.00 %w/w Min.	98.00 %w/w Min.
03	Loss on Drying	0.50%w/w Max.	0.50%w/w Max.	0.50%w/w Max.
04	Alkalinity as Na2CO3	0.05%w/w Max.	0.05%w/w Max.	0.05%w/w Max.
05	Chloride as Cl	0.10%w/w Max.	0.10%w/w Max.	0.10%w/w Max.
06	Sodium Nitrite	0.20%w/w Max.	0.03%w/w Max.	0.03%w/w Max.
07	Sulphate as SO4	0.05%w/w Max.	-	-
08	Iron As Fe	0.005%w/w Max.	0.005%w/w Max.	0.005%w/w Max.
09	Anticaking agent	-	-	0.5 to 1.0%w/w



Technical Data Sheet

Packing information:

Grade	Packing
StandardGrade	50 Kg HDPE woven bags
-coated	with LDPE liner

Product safety information:

Sodium nitrate may irritate the skin or eyes. Contact with combustible material may cause fire. 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 nitrate dusts are swallowed or inhaled, there is a risk of methemoglobin formation and cyanosis. It is therefore essential to avoid inhaling and swallowing

As with any chemical, sodium nitrate 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.

Important

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.