

TECHNICAL DATA SHEET

Sodium Naphthalene Formaldehyde (SNF) 5% Grade

Low sodium sulfate SNF water reducing agent for concrete and industrial dispersing applications

Product Code	GAC-SNF-5	CAS No.	36290-04-7
HS Code	3824401000	CB Number	CB8129327
Grade / Model	SNF-5%	Physical Form	Brown powder
Division	Industrial Chemicals	Website	www.lignincorp.com

Product Type	Primary Role	Application Focus	Document Status
Sodium naphthalene sulfonate formaldehyde condensate	High-range water reducer / dispersant	Concrete, cement, dispersion and industrial processing	Rewritten TDS based on supplied specification

1. Product Overview

Sodium Naphthalene Formaldehyde (SNF), also known as PNS or NSF, is an anionic surfactant and sodium salt of an alkyl naphthalene sulfonic acid formaldehyde condensate. It is a low molecular weight dispersant with controlled sodium sulfate content, designed for cement concrete water reduction, oil well cement, leather tanning and related industrial dispersion applications.

2. Specification

Parameter	Specification
Model / Grade	SNF-5%
Cement Paste Fluidity	220 mm min
Chloride Content, Cl ⁻	0.4% max
pH Value	7 - 9
Surface Tension	(71 +/- 1) x 10 ⁻³ N/m
Solids Content	91% min
Sodium Sulfate Content, Na ₂ SO ₄	5% max

3. Technical Features

- Reduces water consumption without affecting normal cement concrete construction, helping reduce internal pores and improve concrete strength.
- Improves workability of cement concrete and reduces construction mixing energy consumption.
- Can reduce cement and water dosage while maintaining performance and mechanical properties, supporting cost-efficient concrete formulations.
- No adverse effect on concrete shrinkage under normal recommended usage and no corrosive effect on steel reinforcement based on supplied product information.

4. Performance Test Data

Item	Age / Condition	Criteria	Actual Result
Water Reduction, %	-	14 min	17
Water Penetration, %	-	90 max	80
Air Content, %	-	3.0 max	2.0
Compressive Strength Ratio, %	1 d	140 min	165
Compressive Strength Ratio, %	3 d	130 min	155
Compressive Strength Ratio, %	7 d	125 min	135
Compressive Strength Ratio, %	28 d	120 min	130
Shrinkage, %	28 d	135 max	87

5. Recommended Usage

- Typical blending dosage: 0.5%-1.0% by weight of cementitious material; 0.75% is recommended as an initial trial dosage.
- Prepare aqueous solutions as required by production or batching conditions.
- Pre-test compatibility with cement, aggregates and other admixtures before commercial application.

6. Packaging, Storage and Handling

Packaging	Woven bags for powder products. Common net weight: 25 kg +/- 0.2 kg, 650 kg +/- 0.2 kg or 700 kg +/- 0.2 kg. Other packing may be arranged by contract.
Storage	Store in a dedicated, dry and well-ventilated warehouse. Keep bags sealed and protected from moisture.
Moisture Handling	If affected by damp conditions, crush the material or dissolve it into solution before use. Product effectiveness should be verified before application.

Cautions

Prevent packages from being torn by sharp objects during transfer or delivery. Avoid dust inhalation and eye/skin contact. Refer to MSDS/SDS before use.

Shelf Life

Typically 12 months when stored in original packaging under dry conditions. Confirm shelf life according to contract and batch documentation.

7. Disclaimer

The information above is based on the supplied technical data and is provided for industrial reference only. Product suitability must be confirmed by the user through application testing under actual conditions. Final specifications are subject to the sales contract, batch COA and original signed/stamped documents.