



TECHNICAL DATA SHEET (TDS)

Sodium Naphthalene Formaldehyde (SNF) 20%

GREEN AGROCHEM Industrial Chemicals - Concrete Admixture Technical Document

Product Code	GAC-IC-TDS-Sodium-Naphthalene-Formaldehyde-SNF-20-Percent	Revision Date	2026-05-02
CAS No.	36290-04-7	Version	TDS-GAC-IC-2026
Product Type	Non-air-entraining superplasticizer and water-reducing agent	Document Type	Technical Data Sheet

1. Product Identification

Product Name	Sodium Naphthalene Formaldehyde (SNF) 20%
Trade / Technical Name	Sodium Naphthalene Formaldehyde (SNF) 20% Sodium Sulfate Grade
Product Code	GAC-IC-TDS-Sodium-Naphthalene-Formaldehyde-SNF-20-Percent
CAS No.	36290-04-7
Chemical Formula / Type	Polymer / condensation product
Synonyms	PNS; NSF; Poly Naphthalene Sulfonate
HS Code	3824401000
CB Number	CB8129327
Supplier	GREEN AGROCHEM CO., LIMITED
Address	South West Station Road, Fengtai District, Beijing, China
Email	info@greenagrochem.com
Website	www.lignincorp.com

2. Product Description

Sodium Naphthalene Formaldehyde (SNF) 20% is a free-flowing brown to dark brown powder used as a high-performance water reducer and dispersant in cementitious systems. It is suitable for concrete formulations, building cement, oil well cementing and selected industrial dispersing uses.

3. Main Specifications

Parameter	Specification
Appearance	Brown to dark brown powder
Solids Content	91% min
Net Starch Fluidity	210 mm min
Sodium Sulfate (Na ₂ SO ₄)	20% max
Chloride (Cl ⁻) Content	0.5% max
pH Value	7 - 9
Surface Tension	(71 +/- 1) x 10 ⁻³ N/m

4. Key Features and Industrial Performance

- High Water Reduction and Strength: Reduces water demand and improves concrete strength development by lowering water-cement ratio.
- Superior Workability: Improves flowability, workability and pumpability while minimizing segregation.
- Cost Optimization: Supports cement and water reduction while maintaining target concrete performance.
- Durability and Safety: No adverse effect on shrinkage under recommended use and non-corrosive to internal steel reinforcement.
- Industrial Versatility: Suitable for construction chemicals, oil well cementing, filler and leather tanning applications.

5. Standard Test Performance Data

Test Item	Acceptance Criteria	Typical / Actual Result
Water Reduction	14% min	16%
Water Penetration Ratio	90% max	85%
Air Content	3% max	2%
Compressive Strength (1 Day)	140% min	160%
Compressive Strength (3 Days)	130% min	155%
Compressive Strength (7 Days)	125% min	135%
Compressive Strength (28 Days)	120% min	125%

Test Item	Acceptance Criteria	Typical / Actual Result
Shrinkage Ratio (28 Days)	135% max	89%

6. Applications

- High-range water reducer for concrete.
- Concrete superplasticizer for ready-mix, precast and construction chemical formulations.
- Cement dispersant and oil well cementing admixture.

7. Application and Usage Guidelines

- Recommended dosage range: 0.5% - 1.0% by weight of cementitious materials.
- Typical baseline dosage: 0.75%.
- Can be added directly to dry mix or pre-dissolved into water depending on site conditions.

8. Packaging

- 25kg woven bags, kraft bags or jumbo bags with inner liner.
- Customized packaging can be supplied according to customer requirements.

9. Storage and Shelf Life

- Store in a cool, dry and ventilated warehouse.
- Keep packaging sealed and protect from moisture.

Shelf Life	12 months under recommended storage conditions.
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10. Handling and Safety Note

- Avoid dust generation and unnecessary inhalation of powder during handling.
- Wear safety glasses, gloves and dust mask where dusty conditions occur.
- This TDS is for technical guidance only. Refer to the corresponding SDS/MSDS for full safety, transport and disposal information.

11. Disclaimer

The information in this Technical Data Sheet is based on available product data and is provided for reference to support product selection and application testing. It does not constitute a warranty or a final specification for every application. Users should conduct their own trials and confirm compliance with local regulations and project requirements before use.

Issued by: GREEN AGROCHEM CO., LIMITED | Email: info@greenagrochem.com | Website: www.lignincorp.com