

MATERIAL SAFETY DATA SHEET

Material: SODIUM BENTONITE FOR FOUNDRY, DRILLS

- Section I. Identification of the Substance and of the Company

Product Name:

SODIUM BENTONITE FOR FOUNDRY, DRILLS

Product use:

Casting production, drilling fluids, soil sealing.

Distributor:

GloryWinSun OLEKSANDR TUPYTSIA

Headquarter:

Nadbystrzycka 6, 20-618 Lublin

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Section II. Physical and Chemical Properties

No	Parameter	Ukrainian Bentonite	Tipe DSTU 28177-89	Resist. comp., Pa (kgf/cm²) ≥	Tensile strength at break in the condensation zone must be a minimum of Pa (kgf/cm²).	Termal estabilidad, mín.
1	Mass fraction of SiO ₂ , %	58.8	Π1T1	88 260 (0,9)	2 750 (0,028)	0,6
2	Mass fraction of TiO ₂ , %	1.14	Π1T2	88 260 (0,9)	2 750 (0,028)	0,3
3	Mass fraction of Al ₂ O ₃ , %	17.58	Π1T3	88 260 (0,9)	2 750 (0,028)	-
4	Mass fraction of Fe ₂ O ₃ + FeO, %	6.3	Π2T1	88 260 (0,9)	1 960 (0,020)	0,6
5	Mass fraction of MnO, %	0.03	Π2T2	88 260 (0,9)	1 960 (0,020)	0,3
6	Mass fraction of CaO, %	2.16	Π2T3	88 260 (0,9)	1 960 (0,020)	-
7	Mass fraction of K ₂ O + N ₂ O, %	0.06 – 0.29	Π3T1	88 260 (0,9)	1 470 (0,015)	0,6
8	Mass fraction of P ₂ O ₅ , %	0.05	Π3T2	88 260 (0,9)	1 470 (0,015)	0,3
9	Mass fraction of SO ₃ , %	0.05 – 0.03	C1T1	68 650 (0,7)	2 750 (0,028)	0,6
10	Mass fraction of CO ₂ , %	0.19	C1T2	68 650 (0,7)	2 750 (0,028)	0,3
11	Mass fraction of MgO, %	2.17	C2T1	68 650 (0,7)	1 960 (0,020)	0,6
12	Loss on ignition (LOI), %	9.7	C2T2	68 650 (0,7)	1 960 (0,020)	0,3
13	Moisture content, %	6.0 – 12.0	C3T1	68 650 (0,7)	1 470 (0,015)	0,6
14	Compressive Strength (GCS)	min 0.9 kg/cm² (≈8.83 N/cm²)	C3T2	68 650 (0,7)	1 470 (0,015)	0,3
15	Thermal stability, min	0.3	M1T1	49 030 (0,5)	2 750 (0,028)	0,6
16	Montmorillonite content, %, min	50.0	M1T2	49 030 (0,5)	2 750 (0,028)	0,3
17	Water absorption, max	4.3	M2T1	49 030 (0,5)	1 960 (0,020)	0,6
18	Bulk density, g/cm³, min	1.0	M2T2	49 030 (0,5)	1 960 (0,020)	0,3
19	Fraction 0 – 0.071 mm, %	75.0	M3T1	49 030 (0,5)	1 470 (0,015)	0,6
			M3T2	49 030 (0,5)	1 470 (0,015)	0,3

- Strong grades ("Π") have the highest compressive strength (0.9 kgf/cm²) and high tensile strength.
- Medium-strength grades ("C") have slightly lower strength (0.7 kgf/cm²) and average tensile strength.
- Low-strength grades ("M") have the lowest strength (0.5 kgf/cm²) and the lowest tensile strength.
- Thermal stability varies from 0.3 to 0.6, which affects the behavior of the clay when heated.

Section III. Fire and Explosion Hazard Information

No explosion hazard.

Section IV. Stability and Reactivity

Chemical Stability: Stable

Section V. Health Hazards Data

Potential Health Effects:

- Eye: No hazard
- Skin: No hazard
- Ingestion: No hazard

Section VI. First Aid Measures

No hazard

Section VII. Exposure Controls

Engineering Controls: Stable

Section VIII. Personal Protection

Use with protection equipment.

Section IX. Handling

Normal running.

Section X. Storage

The product must be kept dry.

Section XI. Transport Information

Transport using tarpaulin utility vehicle or utility van.

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