

Ammonium Sulphate

CAS 7783-20-2 · $(\text{NH}_4)_2\text{SO}_4$ · 20.6% N · 23% S min (FCO)

Velora Chemicals Private Limited

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1. Product identity

Product name	Ammonium Sulphate
Synonyms	ammonium sulfate, AS fertiliser, $(\text{NH}_4)_2\text{SO}_4$, caprolactam grade ammonium sulphate, steel grade ammonium sulphate
C.A.S. number	7783-20-2
Molecular formula	$(\text{NH}_4)_2\text{SO}_4$
Molecular weight	132.14 g/mol
Grade supplied against	20.6% N · 23% S min (FCO)
Appearance	Odourless crystalline granules or orthorhombic crystals. Caprolactam-grade material is typically white to off-white with a coarse, uniform crystal; by-product and steel/coke-oven grades may run off-white to light brown or grey (PubChem records the colour/form as 'white or brown orthorhombic crystals'; Teck's premium-grade SDS describes 'white crystalline granules'). Hygroscopic at high humidity.
Product group	Industrial Salts & Inorganics
HSN code	3102 21 00
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	50 kg bag · bulk
Storage	Store in a dry, cool, well-ventilated area. Keep bags and containers closed - the product is hygroscopic and will cake at high humidity. Keep away from alkalis (ammonia evolution), oxidising agents and the metals it corrodes. Avoid storing in direct contact with brass, mild steel or 416 stainless steel fittings without protection. Avoid dust generation and accumulation during bulk handling.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Odourless crystalline granules or orthorhombic crystals. Caprolactam-grade material is typically white to off-white with a coarse, uniform crystal; by-product and steel/coke-oven grades may run off-white to light brown or grey (PubChem records the colour/form as 'white or brown orthorhombic crystals'; Teck's premium-grade SDS describes 'white crystalline granules'). Hygroscopic at high humidity.	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed

S. No.	Test parameter	Specification	Method
3	Assay / grade	20.6% N · 23% S min (FCO)	Titrimetry or instrumental, per method agreed
4	Physical state	Solid (crystalline granules)	Visual
5	Solubility in water	Highly soluble. 76.4 g/100 g water at 25 C (PubChem/CRC; Teck SDS gives 76 g/100 g at 20 C); 70.6 g/100 g at 0 C and 103.8 g/100 g at 100 C. Dissolution is endothermic - solutions cool on mixing.	Per the test method agreed
6	pH	6.5 in a 10 % w/w aqueous solution (Teck SDS); 5.5 in a 0.1 M aqueous solution (PubChem). Slightly acidic; the value depends strongly on the concentration and on residual free acidity in the grade, so always publish the concentration alongside the figure.	Potentiometry on an aqueous suspension
7	Relative density	1.77 g/cm ³ at 25 C (true density, PubChem). Bulk density 960 kg/m ³ loose and 1040 kg/m ³ packed (Teck SDS) - publish bulk and true density separately.	Pyknometry or gas displacement
8	Melting / freezing point	Does not melt - it decomposes. Decomposes above 235 C, with decomposition beginning between 150 and 280 C (Teck SDS); PubChem gives 280 C (decomposes). Decomposition releases ammonia and sulphur oxides.	Thermal analysis
9	Boiling point	Not available (decomposes before boiling)	Not applicable
10	Flash point	Not flammable	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

Not regulated · Class Not regulated · Packing group Not regulated

Proper shipping name: Not regulated. The Teck SDS states 'Not a regulated product' under Canada TDG, US DOT, IMO/IMDG and IATA, with UN number not applicable. Ammonium sulphate is not a dangerous good for transport. Note that this is specific to ammonium sulphate and does not extend to ammonium nitrate or to ammonium sulphate nitrate, which are regulated oxidisers - do not let the entries sit next to each other on a document without that distinction being clear.

What this document is. This is a product specification sheet. It states the grade this material is supplied against, its packing and its identity. **It is not a certificate of analysis, it carries no test results, and it certifies no batch.** Tested values for the consignment actually loaded appear on the batch certificate of analysis issued against that batch, which travels with the despatch documents. Identity and physical data are drawn from PubChem, the ECHA CLP inventory and ILO safety cards; the producer's documents for the grade quoted govern. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.