

Bleaching Powder

CAS 7778-54-3 · Ca · 32–34% av. Cl (IS 1065)

Velora Chemicals Private Limited
Ahmedabad, Gujarat, India
+91 99255 22674 · info@velorachemicals.com

1. Product identity

Product name	Bleaching Powder
Synonyms	chlorinated lime, stable bleaching powder, calcium hypochlorite powder, chloride of lime
C.A.S. number	7778-54-3 (calcium hypochlorite, the active constituent). Stable bleaching powder is a mixture, not a single substance; the co-constituents calcium hydroxide (1305-62-0) and calcium chloride (10043-52-4) are normally declared alongside it.
Molecular formula	$\text{Ca}(\text{ClO})_2$ (active constituent); the commercial product is a mixture of $\text{Ca}(\text{ClO})_2$ with $\text{Ca}(\text{OH})_2$ and CaCl_2
Molecular weight	142.98 ($\text{Ca}(\text{ClO})_2$); ILO ICSC 0638 gives 143.0 and IS 15738:2007 gives 142.98). A 33% available-chlorine product is a mixture and has no single molecular weight.
Grade supplied against	32–34% av. Cl (IS 1065)
Appearance	White to off-white free-flowing powder or granules with a strong, pungent chlorine odour
Product group	Industrial Salts & Inorganics
HSN code	2828 10 10
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	50 kg drum
Storage	Store in the original, tightly closed HDPE bags or drums in a cool, dry, dark, well-ventilated place, out of direct sunlight and away from all heat sources. IS 15738:2007 requires a non-combustible floor (wooden floors are prohibited), a minimum 1 m clearance from electrical fittings, heat detection, an approved fire hydrant system with copious water available, and enforced no-smoking. Segregate from acids, ammonium compounds, urea, amines, organic material, oils, reducing agents, metal oxides, combustibles and foodstuffs. Keep dry - moisture ingress is a primary cause of self-heating. Do not stack damaged or contaminated bags, and keep bund/washings out of drains.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	White to off-white free-flowing powder or granules with a strong, pungent chlorine odour	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	32–34% av. Cl (IS 1065)	Titrimetry or instrumental, per method agreed
4	Physical state	Solid (powder or granules)	Visual

S. No.	Test parameter	Specification	Method
5	Solubility in water	Soluble, with partial decomposition. About 21 g/100 mL at 25 C for calcium hypochlorite (ILO ICSC 0638); producer data for stable bleaching powder 23.4 g/100 mL at 40 C. Solutions are alkaline and turbid because of the calcium hydroxide content.	Per the test method agreed
6	pH	11.5 in a 5% w/v aqueous solution or slurry (two independent producer sheets agree); strongly alkaline. The dry solid itself has no pH.	Potentiometry on an aqueous suspension
7	Relative density	Relative density 2.35 at 20 C (ILO ICSC 0638; IS 15738:2007 gives specific gravity 2.35 at 20 C). Bulk density of the commercial powder 0.8-1.2 g/cm ³ at 20 C.	Pyknometry or gas displacement
8	Melting / freezing point	Not applicable - decomposes before melting. Decomposition begins at about 100 C and becomes rapid above 175 C (ILO ICSC 0638); IS 15738:2007 records accelerated decomposition above 170 C with release of oxygen and chlorine.	Thermal analysis
9	Boiling point	Not applicable - decomposes on heating	Distillation range
10	Flash point	Not flammable - but this is an OXIDISER (Ox. Sol. 2, H272). It does not burn itself; it supplies oxygen and will intensify and accelerate the burning of any combustible material in contact with it, and it can start a fire without an external ignition source when contaminated with organic matter.	Not applicable — the substance is not combustible
11	Additional parameters	To the specification agreed before order	As agreed

3. Transport classification

UN 2208 (for the dry 33% available-chlorine product). UN 3486 if the same dry mixture also meets Class 8 corrosivity criteria; UN 2880 for hydrated material or hydrated mixtures with 5.5-16% water; UN 1748 (or UN 3485 if corrosive) for dry material above 39% available chlorine. · Class 5.1 (oxidising substance), classification code O2. UN 3486 is 5.1 with subsidiary hazard 8. · Packing group III (for UN 2208 and UN 3486). UN 2880 is PG II or III and UN 1748/3485 is PG II, depending on form and strength.

Proper shipping name: CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 10% but not more than 39% available chlorine

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.