

Zinc Oxide

CAS 1314-13-2 · ZnO · 99.5% – 99.7%

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1. Product identity

Product name	Zinc Oxide
Synonyms	zinc white, ZnO, zinc oxide powder, zinc oxide 99.5%
C.A.S. number	1314-13-2
Molecular formula	ZnO
Molecular weight	81.4 (ILO ICSC 0208)
Grade supplied against	99.5% – 99.7%
Appearance	White to off-white, odourless fine powder. It reversibly develops a faint yellow tinge when hot and returns to white on cooling.
Product group	Industrial Salts & Inorganics
HSN code	2817 00 10
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	25 kg bag
Storage	Store in closed bags, big-bags or containers in a dry place at room temperature (about 15-25 C), separated from acids, strong alkalis, aluminium and magnesium powders and chlorinated rubber. Control dust during tipping, conveying and blending - use local exhaust ventilation and keep surfaces clear of settled powder. Provide bunding and containment so that spillage and any firefighting run-off cannot reach drains, surface water or groundwater, which is the operative control for an H410 substance. Protect bags from moisture, which causes caking.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	White to off-white, odourless fine powder. It reversibly develops a faint yellow tinge when hot and returns to white on cooling.	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	99.5% – 99.7%	Titrimetry or instrumental, per method agreed
4	Physical state	Solid (fine powder)	Visual
5	Solubility in water	Practically insoluble - 0.002 g/L at 20 C (ILO ICSC 0208 states 'none'). Zinc oxide is amphoteric and dissolves readily in dilute acids and in strong alkalis.	Per the test method agreed

S. No.	Test parameter	Specification	Method
6	pH	7-8 in a 50 g/L aqueous suspension at 20 C (producer data). Because the solid is practically insoluble this is a suspension pH, not a solution pH - always state the concentration and that it is a slurry.	Potentiometry on an aqueous suspension
7	Relative density	5.68 g/cm ³ at 20 C (ILO ICSC 0208 gives 5.6 g/cm ³). Bulk density 300-500 kg/m ³ - much lower than the true density, and it varies widely between direct-process and indirect-process grades, so use the producer's figure for packaging and silo design.	Pyknometry or gas displacement
8	Melting / freezing point	1975	Thermal analysis
9	Boiling point	Not available - zinc oxide sublimates and decomposes rather than boiling at atmospheric pressure; no boiling point is reported by ILO ICSC 0208 or by the producer sheets consulted.	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

UN 3077 · Class 9 (miscellaneous dangerous substances and articles), classification code M7 · Packing group III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE) - marine pollutant. The technical name in brackets is mandatory under special provision 274.

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.