

Sodium Hypochlorite

CAS 7681-52-9 · NaOCl · 10% – 14% available chlorine

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1. Product identity

Product name	Sodium Hypochlorite
Synonyms	liquid bleach, hypo solution, NaOCl, sodium hypo
C.A.S. number	7681-52-9 (sodium hypochlorite). The supplied product is an aqueous solution of this substance plus excess sodium hydroxide, so declare it as a mixture on the SDS while quoting this CAS for the active.
Molecular formula	NaOCl (also written NaClO)
Molecular weight	74.44 g/mol (given as 74.4 on the ILO ICSC card). This is for sodium hypochlorite itself; the 10-14% solution is a mixture and has no single molecular weight.
Grade supplied against	10% – 14% available chlorine
Appearance	Clear, slightly greenish-yellow to yellow liquid with a strong, characteristic chlorine odour. Trace suspended solids and a faint precipitate are normal in aged material.
Product group	Industrial Salts & Inorganics
HSN code	2828 90 19
Country of origin	As stated on the producer's documents for the lot supplied; confirmed at offer stage
Packing	Road tanker · 250 kg carboy
Storage	Store cool (below about 30 degC), out of direct sunlight and away from heat, in a dark, well ventilated area. Use vented HDPE, GRP/FRP, titanium or rubber-lined vessels - the solution slowly evolves oxygen, so closures must vent. Keep physically segregated from acids, with separate bunds and separate fill points, and never share a bund or a delivery line with poly aluminium chloride, alum or any acid. Keep away from combustibles, reducing agents, ammonia and food. Strength decays with time and temperature, so rotate stock and re-test before sale.

2. Analytical specification

S. No.	Test parameter	Specification	Method
1	Description	Clear, slightly greenish-yellow to yellow liquid with a strong, characteristic chlorine odour. Trace suspended solids and a faint precipitate are normal in aged material.	Visual
2	Identification	Conforms to the substance supplied	Instrumental or chemical test, per method agreed
3	Assay / grade	10% – 14% available chlorine	Titrimetry or instrumental, per method agreed
4	Physical state	Liquid (aqueous solution)	Visual

S. No.	Test parameter	Specification	Method
5	Solubility in water	Fully miscible with water; solubility of sodium hypochlorite itself 293 g/L at 20 degC	Per the test method agreed
6	pH	Strongly alkaline. pH 12 measured at 160 g/L dilution (BASF SDS for a 13-16% w/w product). A North American producer quotes pH 14 for a 7-13% product measured as supplied. Commercial 10-14% solutions are deliberately made alkaline with excess caustic soda for stability, so as-supplied pH is typically in the 11-13.5 range - publish your own COA figure and always state whether it is the neat solution or a dilution.	Potentiometry
7	Relative density	1.20-1.25 g/mL at 20 degC (ILO ICSC 1119); 1.21 for a 14% solution at 20 degC; 1.19 specific gravity reported for a 7-13% product	Densitometry / hydrometry
8	Melting / freezing point	-30 to -20 degC for solutions with more than 10% active chlorine (ILO ICSC 1119)	Capillary / thermal
9	Boiling point	About 110 degC (Chemtrade producer SDS); BASF gives 100 degC and notes this is the boiling point of the water - the hypochlorite itself decomposes. Never heat or boil the product.	Distillation range
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 1791 · Class 8 (Corrosive substances), classification code C9 · Packing group II for 10-14% available chlorine - both the BASF 13-16% and Chemtrade 7-13% producer SDS assign PG II. Note that the UN/ADR dangerous goods list contains BOTH a PG II and a PG III entry for UN 1791; the group follows the measured corrosivity of the actual solution, so weaker or less aggressive hypochlorite solutions are legitimately shipped PG III. Special provision 521 is assigned to this entry - check its current text in the ADR/UN edition you are shipping under.

Proper shipping name: HYPOCHLORITE SOLUTION

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.