



Technical Data Sheet – Barium Chloride

Barium chloride is an inorganic compound with the formula $BaCl_2$. It is one of the most common water-soluble salts of barium. Like most other barium salts, it is white, toxic, and imparts a yellow-green coloration to a flame. It is also hygroscopic, converting first to the dihydrate $BaCl_2 \cdot (H_2O)_2$.

Sr No.	Parameters	Specifications	Result
01	Appearance (Color)	White	White
02	Appearance (Form) Powder, Crystals, Crystalline Powder and/or chunks	Confirms to Requirements	Powder
03	Titration by $AgNO_3$ % Chlorine	28.3-29.7 %	28.8%
04	ICP Major Analysis Confirms Barium Component	Confirmed	Confirmed
05	Purity $\geq 99.999\%$ Based on Trace Metal Analysis	Meets Requirement	Meets Requirement
06	Trace Metal Analysis	≤ 10.0 ppm	4.1 ppm

Application:

Although inexpensive, barium chloride finds limited applications in the laboratory and industry. In industry, barium chloride is mainly used in the purification of brine solution in caustic chlorine plants and also in the manufacture of heat treatment salts, case hardening of steel.^[5] Its toxicity limits its applicability.