

## barysun products

"barysun", one of TSR Holding's brands, specializes in the production of various types of barium salts, including barium sulfate (blanc fixe), barium carbonate, and barium chloride, as well as other compounds like sodium sulfide (Flake and Liquid), are among the products of barysun to meet the material requirements of industries such as glass manufacturing, ceramic glazing, and agricultural pesticides.

## Barium salts

Barium Salts are chemical compounds derived from the element barium, known for their distinctive properties and wide industrial applications. These salts are used across various sectors including medicine, electronics, agriculture, and manufacturing. Thanks to their unique reactivity and versatility, barium salts play a vital role in numerous processes and products, contributing significantly to developments in science, technology, and industrial production.

## Barium Carbonate

Barium Carbonate ( $\text{BaCO}_3$ ) is a white, fine powder widely used in various industries such as ceramics, glass, pigments, and chemicals. It plays an essential role in the production of ceramic glazes, opal dishes, sanitaryware, and different types of glass. It is also used in the formulation of paints and pigments, in the chlor-alkali industry, in oil and gas applications, and in the extraction processes of metals like lead and zinc. Barium carbonate is insoluble in water and alcohol but reacts with acids. Due to the toxic nature of barium compounds, proper safety and health measures must be observed when handling this material.

Item	Standard
Purity	99%
HCl insoluble matter	0.25% Max
Iron as $\text{Fe}_2\text{O}_3$	0.004%Max
325mesh	3% Max



Precipitated Barium Sulfate (Blanc Fixe)

Blanc Fixe, also known as Precipitated Barium Sulfate (BaSO<sub>4</sub>), is a white, odorless, and inert powder composed of barium and sulfate. It occurs naturally in certain mineral rocks but is commonly produced through a controlled precipitation process to achieve high purity and fine particle size. Blanc Fixe is widely used as a functional filler in various industries including paints, plastics, rubber, paper, textiles, food, and pharmaceuticals. Its high brightness and chemical stability make it an ideal agent for enhancing whiteness and surface properties in applications such as printing, coatings, and interior design materials.

Due to its insolubility in water and narrow particle size distribution, Blanc Fixe also plays a critical role in pigment formulations and color optimization processes. In the medical field, it is used as a radiopaque contrast agent in X-ray imaging and other diagnostic procedures, typically suspended in water or oil. Despite its broad utility, Blanc Fixe contains barium and must be handled with care. Proper safety protocols must be followed, especially in food and pharmaceutical applications. In case of ingestion, immediate medical attention is advised.

Item	Standard
Purity	99%
Whiteness	88
Water Soluble	≤0.20
Residue on 325 mesh	≤0.2
Specific Gravity (g/cm3)	4.2-4.4

Barium Chloride

Barium Chloride (BaCl<sub>2</sub>) is a white, odorless, water-soluble salt used in a wide range of industrial applications. It is known for its yellow-green flame color and, like other barium compounds, is toxic and must be handled with care. Barium chloride is commonly used in the production of paints, plastics, rubber, resins, and stabilizers. It also plays a role in the chlor-alkali industry, textile processing, electronics, insulation materials, drilling fluids, thermal treatment processes, and the formulation of various other chemical compounds.

Thanks to its high solubility and chemical reactivity, Barium Chloride serves as a valuable raw material and processing aid in numerous chemical syntheses and industrial workflows. Its effectiveness in removing sulfates from solutions, controlling impurities, and acting as a stabilizing agent makes it indispensable in both large-scale manufacturing and specialized formulations. This versatility positions Barium Chloride as a key component in ensuring process efficiency and product quality across diverse industries.

Item	Standard
Purity	99% Min
Strontium	250 ppm
Iron as Fe <sub>2</sub> O <sub>3</sub>	0.001% Max
Water Insoluble Matter	0.03 Max



Other Mineral Salts

Sodium Sulfide Flake

Sodium Sulfide Flakes (Na<sub>2</sub>S) are water-soluble, highly alkaline salts commonly produced and marketed in hydrated forms. These compounds appear as yellow to red flakes—referred to as sodium sulfide flakes—primarily due to the presence of polysulfides. Despite their color in solid form, they dissolve into clear, colorless solutions. Upon exposure to moist air, sodium sulfide releases hydrogen sulfide (H<sub>2</sub>S) gas, recognizable by its characteristic odor of rotten eggs.

Industrial-grade sodium sulfide flakes typically contain around 60% Na<sub>2</sub>S by weight, and are valued for their reactivity and versatility across various applications. These include the leather industry (for dehairing and hide processing), textile and dye production, pulp and paper manufacturing, water treatment, and chemical synthesis. In limited cases, sodium sulfide is also used as a preservative in certain food-grade processes, always under strict regulation. Its reliable performance and strong reducing properties make it a critical component in many industrial operations.

Item	Result
Iron as Fe2O3	300ppm Max
Purity	60%min
Water insoluble	0.1% Max
Specific Gravity	1.7 g/cm3
Color	Red