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In the world of industrial minerals, calcium carbonate holds a special place. This versatile compound finds applications in various industries, from plastics to paints and from pharmaceuticals to construction. One name that shines brightly as a prominent <u>Calcium Carbonate Manufacturer in India</u> is Mewar Microns. Calcium carbonate is a chemical compound with the formula CaCO3. It is a common substance found in rocks as the minerals calcite and aragonite, and it is the main component of shells of marine organisms, snails, coal balls, pearls, and eggshells. In terms of industrial applications, calcium carbonate plays a crucial role in various sectors due to its unique properties.



Properties of Calcium Carbonate

- 1. Chemical Composition: Calcium carbonate consists of calcium (Ca), carbon (C), and oxygen (O) atoms in a 1:1:3 ratio.
- 2. Appearance: In its natural form, it appears as white, chalky powder or solid crystals.
- 3. Solubility: Calcium carbonate is sparingly soluble in water, meaning it doesn't readily dissolve in pure water but can do so in acidic water.
- 4. pH-Dependent: Its solubility is highly pH-dependent. It dissolves readily in acidic solutions but precipitates out in alkaline conditions.
- 5. Crystal Structure: It has a hexagonal crystal structure.

Uses of Calcium Carbonate

- 1. Construction Industry: Calcium carbonate is used as a building material in the construction industry. It serves as an essential ingredient in the production of cement, mortar, and concrete. It acts as a filler, providing strength and stability to these materials.
- 2. Paper Industry: In the paper industry, calcium carbonate is widely used as a filler material. It enhances the brightness, opacity, and smoothness of paper, improving its quality. It is especially prevalent in the production of coated papers.
- 3. Pharmaceuticals: In the pharmaceutical industry, calcium carbonate is utilized as an antacid.