

Product Safety Summary

Calcium Carbonate

CAS No. 497-34-1

This Product Safety Summary is intended to provide a general overview of the chemical substance. The information on the summary is basic information and is not intended to provide emergency response information, medical information or treatment information. The summary should not be used to provide in-depth safety and health information. In-depth safety and health information can be found on the Material Safety Data Sheet (MSDS) for the chemical substance.

Names

- Calcium carbonate
- Chalk

Product Overview

Calcium carbonate is a white, granular or powdered solid. It is used primarily in construction, to make glass, production of polymer compounds as well as for acid gas treatment and pH adjustment. It is also used in the manufacture of other chemicals and pharmaceuticals.

Solvay Chemicals, Inc. does not sell calcium carbonate directly to consumers. Consumers may be exposed to calcium carbonate in many consumer product applications where the calcium carbonate is not transformed or reacted and is present in powder or granule form.

Exposure to calcium carbonate, especially powder, can cause irritation to the skin, eyes, and respiratory tract.

Manufacture of Product

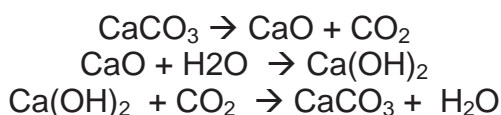
- Solvay Chemicals imports the calcium carbonate it sells from a Solvay Affiliate in Europe.
- Solvay manufactures calcium carbonate by calcining (removing carbon dioxide) quarried marble to form lime (calcium oxide). Water is added to make calcium hydroxide and



carbon dioxide (CO₂) is passed through the solution to reform a purified calcium carbonate which is then precipitated (crystallized) into its final form.



CaCO₃
Calcium Carbonate



Product Description

Calcium carbonate (CaCO₃) is manufactured and sold as a white, odorless powder or granules. Typical physical properties are provided in Table 1.

Table 1: Typical physical properties of Calcium Carbonate

Decomposition Temperature	1292- 1652° F (700-900° C)
Bulk Density	18-37 lbs./ft ³ (300-600 kg/m ³)
Flash point	Non- flammable
Solubility in water	14 mg/L @ 77° F (25° C)

Product Uses

Calcium carbonate is used primarily in construction, to make glass, production of polymer compounds as well as for acid gas treatment and pH adjustment. It is also used in the manufacture of other chemicals and pharmaceuticals.

Exposure Potential

Workplace exposure - Exposures can occur at a calcium carbonate manufacturing facility or a manufacturing, packaging or storage facility that handles calcium carbonate. Exposure may also occur in the event of a transportation incident. Persons involved in maintenance, sampling and testing activities, or in the loading and unloading of calcium carbonate containers are at greater risk of exposure. Following good industrial hygiene practices will minimize the likelihood of calcium carbonate exposure; however, persons involved in higher risk activities should always wear proper personal protective equipment such as protective gloves, goggles and a hard hat. In instances where the potential for dusting is high, proper respiratory protection should also be worn.

- **Consumer exposure to products containing calcium carbonate** - Although Solvay Chemicals, Inc. does not sell calcium carbonate directly to consumers, some of its uses are in consumer products such as chalk, cement or agricultural lime. The user should always use these products in strict compliance with the manufacturer's use and/or label instructions.
- **Environmental releases** - Spills of calcium carbonate should be contained and isolated from waterways and sewers or drains. Spills should be swept up and placed in a compatible container. Dispose of waste or residues in accordance with applicable local, state or federal regulations. Persons attempting to clean up calcium carbonate spills should wear proper personal protective equipment (See guidelines in the Workplace exposure section of this document or the [Material Safety Data Sheet](#)).
- **Fires** – Calcium carbonate is not flammable or combustible. Fires that occur in the presence of calcium carbonate should be extinguished using means appropriate to the surroundings.

For additional information concerning calcium carbonate emergency response procedures, please consult the [Material Safety Data Sheet](#).

Health Information

Calcium carbonate found in consumer products does not typically pose a risk due to skin or inhalation exposure. Calcium carbonate can produce the following adverse health effects:

- **Contact** - Skin exposures can cause minor skin irritation. Eye exposure to calcium carbonate may result in moderate eye irritation.
- **Inhalation** - The inhalation of calcium carbonate dusts usually do not cause symptoms.
- **Ingestion** - The ingestion of large amounts of calcium carbonate may cause stomach / intestinal discomfort.
- **Other Effects** - The International Agency for Research on Cancer (IARC) has not classified calcium carbonate as a carcinogen (cancer causing).

For more information on health effects and routes of exposure, or for information concerning proper first aid measures, please consult the [Material Safety Data Sheet](#).

Environmental Information

Calcium carbonate is not considered to be environmentally hazardous or toxic.

For more ecological and environmental information concerning this product, please consult the [Material Safety Data Sheet](#).

Physical Hazard Information

For more information concerning the physical hazards of this product, please consult the [Material Safety Data Sheet](#).

Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use and/or disposal of this chemical. These regulations can vary by city, state, country or geographic region. Information may be found by consulting the relevant [Material Safety Data Sheet](#) specific to your country or region.

Additional Information

- Solvay America, Inc. www.solvaynorthamerica.com
- Solvay Chemicals, Inc. www.solvaychemicals.us
- Solvay Chemicals, Inc. Material Safety Data Sheets
www.solvaychemicals.us/EN/Literature/LiteratureDocuments.aspx
- Contact Solvay Chemicals, Inc. solvaychemicals.us@solvay.com
- This summary was prepared in September, 2011.

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