

Did you know about... Snomax storage and shipping guidelines?

The following information should be used as a guideline for shipping, storage, and handling for Snomax for the life of the product. Over the past 30 years, Snomax has been shipped all over the world, with the longest shipping destination being Australia and New Zealand. In the early days, we would ship Snomax down under packed with cooling pads or dry ices, but after extensive testing, we found that Snomax could withstand **two short exposes to room temperature and still have a long and effective shelf life**.

Shipping Guidelines

Snomax can be shipped unrefrigerated but should be stored in a freezer long-term, or if delayed during shipment, Snomax should have a warm transit time of no more than **8 to 14 days** before being returned to a freezer or refrigerator.

Long-term bulk / commercial storage

The distribution inventory of Snomax is best when stored at commercial cold storage locations at temperatures between 0° and 10° Fahrenheit or -17° to -12° Celsius. Long-term storage of Snomax is best in food or medical cold storage locations because these facilities hold a constant temperature, and when defrosting is necessary, they move the product to a new location, so the Snomax is kept at consistently low temperatures. Snomax stored under constant, low-temperature conditions has been tested to have a twenty-year shelf life.

On-site customer storage

Customers can store Snomax in a consumer-grade refrigerator or freezer. Stored in a refrigerator, customers can expect a shelf life of two years or greater. Snomax stored in a consumer-grade freezer has a shelf life of over four years.

Snomax likes to stay at <u>a constant temperature and doesn't like a lot</u> <u>of temperature swings</u>. Consumer-grade freezers typically have autodefrost cycles that vary the temperature to remove the build-up of frost, but this variation in temperature shortens the effective storage time to approximately four years.









(Keep in mind that at the end of four years, the product is not 100 ineffective. What is likely to happen is that the customer will find they need to use 10 to 20% less water when mixing up Snomax that has been stored for more than four years in a consumer-grade freezer.)

Storage handling mishaps and instructions

Snomax that has been stored at room temps (72 F / 22 C) for 30 plus days. When a shipment of Snomax is mislaid and left at room temperatures for an extended time, it should be returned to cold storage as soon as possible and consumed as soon as possible. Snomax that has been unrefrigerated will have the icenucleating proteins begin to break down or denature, lowering its effectiveness to freeze water. The breakdown process starts slow, so if you rotate the mishandled product into use within 30 to 45 days, you may notice little or no degradation of the freezing enhancement, but even if you store it properly after the mishap, after nine months, you could see a loss of twenty-five percent of the effectiveness of the product. Best practices are to store the product correctly and to rotate the oldest product into use first. (first-in, first-out, FIFO)

<u>Snomax that was stored in a freezer that was unplugged for an entire summer.</u> In the case of a failed or unplugged freezer, the product is not entirely lost, but you can expect that you will need to mix the mishandled product at a ratio of two or three bags equals' one bag of product to see the same effect as fresh and properly stored Snomax.

<u>Snomax stored outside in the summer sun.</u> During a summertime shipment of Snomax to Scandinavia, several pallets of Snomax were miss directed by the importation company and were placed under black plastic tarps and left outside in the hot summer sun for thirty days. Upon discovery, samples were tested, and only a twenty-five percent loss of effectiveness was noted during the first test but, further testing of the same product returned to the freezer, over time the product tested lower and lower until one year later the product was tested as losing seventy-five percent of its effectiveness.

<u>Please Note:</u> Snomax that has been exposed to improper handling can be tested by the same independent lab that Snomax uses, but the cost runs \$3000.00 per test. If you have a small quantity in question, it is best to experiment with doubling or tripling the mix ration of Snomax and to use up the product in question as fast as possible before further degradation of the product happens over time.

<u>Disposal of unused Snomax</u>: If you have Snomax that has been mishandled in such a way that you feel it has lost all its effectiveness, pour the Snomax protein down the sanitary sewer and recycle the packaging. The Snomax protein is both sterile and 100% biodegradable, so it poses no environmental risk in disposing of the product in this way.



