

Product Safety Summary

Sodium Metabisulfite (CAS No. 7681-57-4)

This Product Safety Summary is intended to provide a general overview of the chemical substance. The information in 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

- Sodium metabisulphite (MBS)
- Sodium pyrosulfite (pyrosulphite)
- Disodium pyrosulfite
- E223 (food industry)
- Sodium bisulfite, anhydrous
- Disodium metabisulfite (metabisulphite)
- Pyrosulfurous acid, disodium salt

Product Overview

Sodium metabisulfite is a white, granular solid. It is used in the pulp and paper industry, in the photographic industry and in the various other industries as a bleach or dechlorinator. Food Grade sodium metabisulfite may be used as a food preservative. Sodium metabisulfite can also be used in the manufacture of other chemicals.

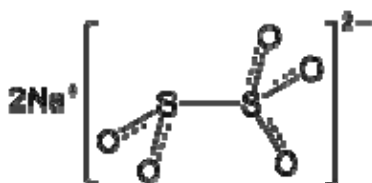
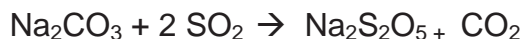
Solvay Chemicals, Inc. does not sell sodium metabisulfite directly to consumers. Consumers may be exposed to sodium metabisulfite in many of the consumer product applications listed above or in situations where the sodium metabisulfite is not transformed or reacted.

Exposure to sodium metabisulfite can cause irritation to the skin, eyes, and respiratory tract. If inhaled, sodium metabisulfite may cause sensitization (develop an allergic reaction). Breathing sodium metabisulfite dusts may aggravate asthma or other pulmonary (breathing) diseases and may cause headaches, breathing difficulties, or heart irregularity. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.



Manufacture of Product

- Solvay Chemicals, Inc.'s production facility is located near Green River, Wyoming.
- Solvay Chemicals, Inc. manufactures sodium metabisulfite by reacting sulfur dioxide with sodium carbonate (soda ash), purifying and drying to form crystals or powder.



$\text{Na}_2\text{S}_2\text{O}_5$
Sodium Metabisulfite

Product Description

Sodium metabisulfite (Na_2SO_5) is manufactured and sold as a white powder. Typical physical properties are provided in Table 1.

Table 1: Typical physical properties of Sodium Metabisulfite

Decomposition Temperature	> 302° F (150° C)
Bulk Density	75-85 lbs/ft ³ (1.2-1.36 kg/m ³)
Flash point	Non- flammable
Solubility in water	450 g/l @ 68° F (20° C)
pH	4.5 (10g/l)

Product Uses

Sodium metabisulfite is used in many industries; for example, in the pulp and paper industry, in the photographic industry and in the various other industries as a bleach or dechlorinator. Food Grade sodium metabisulfite may be used as a food preservative. Sodium metabisulfite can also be used in the manufacture of other chemicals.

Exposure Potential

- **Workplace exposure** - When sodium metabisulfite gets wet or moist, it liberates sulfur dioxide (SO₂), a toxic gas. Proper care should be taken to prevent exposure to this toxic gas by using proper personal protective equipment or ensuring proper ventilation. Exposures can occur at a sodium metabisulfite manufacturing facility or a manufacturing, packaging or storage facility that handles sodium metabisulfite. 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 sodium metabisulfite containers are at greater risk of exposure. Following good industrial hygiene practices will minimize the likelihood of sodium metabisulfite exposure; however, persons involved in higher risk activities should always wear proper personal protective equipment such as protective gloves and goggles. In instances where the potential for dusting is high, proper respiratory protection should also be worn.
- **Consumer exposure to products containing sodium metabisulfite** - Although Solvay Chemicals, Inc. does not sell sodium metabisulfite directly to consumers, some of its uses are in consumer products such as photographic processing solutions or food preservation. Food Grade sodium metabisulfite is Generally Recognized as Safe (GRAS) as a food preservative and is used in potato preparation, cherry brining, corn syrup manufacturing, brewing and wine processing. The user should always use these products in strict compliance with the manufacturer's use and/or label instructions. Persons sensitive to sulfites should be careful when eating in an unfamiliar establishment.
- **Environmental releases** - Spills of sodium metabisulfite should be contained and isolated from waterways and sewers or drains. When contacted by water, sodium metabisulfite releases sulfur dioxide, a poisonous gas. 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 sodium metabisulfite spills should wear proper personal protective equipment (See guidelines in the Workplace exposure section of this document or the [Material Safety Data Sheet](#)).

- **Fires** – Sodium metabisulfite is not flammable or combustible. Fires that occur in the presence of sodium metabisulfite should be extinguished using means appropriate to the surroundings. When sodium metabisulfite decomposes, it liberates toxic sulfur dioxide and sulfur oxides.

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

Health Information

Sodium metabisulfite typically found in consumer products should pose little a risk of symptoms due to skin or inhalation exposure since sodium metabisulfite is used in very low concentrations. Sodium metabisulfite can produce the following adverse health affects:

- **Contact** - Skin exposures can cause symptoms ranging from minor skin irritation or itching to redness and swelling. Eye exposure to sodium metabisulfite may result in redness, tearing or moderate eye irritation.
- **Inhalation** - The inhalation of sodium metabisulfite dusts can cause nose and throat irritation or coughing. Repeated or prolonged exposures may cause sore throat or nosebleeds. Inhalation may also cause severe respiratory reactions and aggravate asthma or other breathing diseases.
- **Ingestion** - The ingestion of sodium metabisulfite may cause irritation of the mouth and throat, nausea, vomiting and diarrhea.
- **Other Effects** - The International Agency for Research on Cancer (IARC) has not classified sodium metabisulfite 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

Sodium metabisulfite 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
- NJ Department of Health & Senior Services Hazardous Substance Fact Sheets <http://web.doh.state.nj.us/rtkhsfs/factsheets.aspx>
- This summary was prepared in June, 2011.

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