

Date of Hearing: April 25, 2023

ASSEMBLY COMMITTEE ON HEALTH

Jim Wood, Chair

AB 1109 (Connolly) – As Amended April 5, 2023

SUBJECT: Product sales: sodium nitrite.

SUMMARY: Makes it unlawful for a person, retailer, or online marketplace to sell sodium nitrite to a person under 21 years of age; and, for a person, retailer, or online marketplace to sell sodium nitrite in concentrations greater than 10% to a person 21 years of age or older.

Specifically, **this bill:**

- 1) Makes it unlawful for a person, retailer, or online marketplace to sell sodium nitrite to a person under 21 years of age.
- 2) Makes it unlawful for a person, retailer, or online marketplace to sell sodium nitrite in concentrations greater than 10% to a person 21 years of age or older.
- 3) Makes demonstration of both of the following a defense to a violation of 1) above:
 - a) The purchaser acknowledged before purchase they were at least 21 years of age through an effective system created by the person, retailer, or online marketplace that is capable of verifying the age of purchasers to ensure they are above the minimum legal age to purchase a product. Prohibits the system from relying on the purchaser simply providing a date of birth without additional verification, using tick boxes to ask purchasers to confirm they are over the minimum age, using a general disclaimer such as: “Anyone ordering this product from our website will be deemed to be at least 21 years of age,” using an “accept” statement for the purchaser to confirm that they have read the terms and conditions and are over the minimum age, using e-payment services that do not verify a user’s age, or only accepting payment by credit card without additional age verification; and,
 - b) The person, retailer, or online marketplace took all reasonable precautions and exercised all due diligence to ensure that the product would be sold and delivered to a person at least 21 years of age.
- 4) Exempts from this bill the sale of sodium nitrite to a business.

EXISTING LAW:

- 1) Establishes the federal Food, Drug, and Cosmetic Act (the Act), which among various functions regulates food, dietary supplements, and cosmetics. [21 United States Code § 310 *et.seq.*]
- 2) Permits, pursuant to federal regulations, the food additive sodium nitrite to be safely used in or on specified foods in accordance with the following prescribed conditions:
 - a) It is used or intended for use as follows:

- i) As a color fixative in smoked cured tuna fish products so that the level of sodium nitrite does not exceed 10 parts per million (0.001%) in the finished product;
 - ii) As a preservative and color fixative, with or without sodium nitrate, in smoked, cured sablefish, smoked, cured salmon, and smoked, cured shad so that the level of sodium nitrite does not exceed 200 parts per million and the level of sodium nitrate does not exceed 500 parts per million in the finished product; and,
 - iii) As a preservative and color fixative, with sodium nitrate, in meat-curing preparations for the home curing of meat and meat products (including poultry and wild game), with directions for use which limit the amount of sodium nitrite to not be more than 200 parts per million in the finished meat product, and the amount of sodium nitrate to not be more than 500 parts per million in the finished meat product.
 - b) Requires, to assure safe use of the additive, in addition to the other information required by the Act, the label of the additive or of a mixture containing the additive to bear:
 - i) The name of the additive; and,
 - ii) A statement of the concentration of the additive in any mixture.
 - c) Requires, if in a retail package intended for household use, the label and labeling of the additive, or of a mixture containing the additive, to bear adequate directions for use to provide a final food product which complies with the limitations prescribed in a) above.
 - d) Requires, if in a retail package intended for household use, the label of the additive, or of a mixture containing the additive, to bear the statement "Keep out of the reach of children." [21 Code of Federal Regulations § 172.175]
- 3) Establishes the Sherman Food, Drug and Cosmetics Law, administered by the California Department of Public Health (DPH), which regulates the packaging, labeling, and advertising of drugs and devices, including dietary supplements. [Health & Safety Code (HSC) § 109875-111929.4]
- 4) Defines food as:
- a) Any article used or intended for use for food, drink, confection, condiment, or chewing gum by man or other animal; and,
 - b) Any article used or intended for use as a component of any article designated in a) above. [HSC § 109935].
- 5) Establishes the California Age-Appropriate Design Code Act, commencing July 1, 2024, which requires a business that provides an online service, product, or feature likely to be accessed by children to comply with specified requirements, including a requirement to configure all default privacy settings offered by the online service, product, or feature to the settings that offer a high level of privacy, unless the business can demonstrate a compelling reason that a different setting is in the best interests of children, and to provide privacy information, terms of service, policies, and community standards concisely, prominently, and using clear language suited to the age of children likely to access that online service, product, or feature. [Civil Code § 1798.99.28 *et seq.*]

- 6) Prohibits, commencing January 1, 2025, the manufacture, sale, delivery or offering for sale any cosmetic product that contains specific intentionally added ingredients, including specified phthalates, formaldehyde, mercury, parabens, and specified polyfluoroalkyl substances. [HSC § 108980-108982]
- 7) Prohibits the sale, manufacture, or exchange of any toy that is contaminated with any toxic substance or that is coated with paints and lacquers with lead compounds, as specified. [HSC § 108555]
- 8) Specifies that on or after June 1, 2006, no person may manufacture, process, or distribute in commerce a product, or a flame-retarded part of a product, containing more than one-tenth of 1% of pentaBDE (pentabrominated diphenyl ether), or octaBDE, as specified. [HSC § 108922]
- 9) Prohibits the manufacture, sale, or distribution of any toy or child care article that contain phthalates, in concentrations exceeding 0.1%, as specified. [HSC § 108935-108939]
- 10) Prohibits, on or after July 1, 2023, the manufacture, sale or distribution of any new juvenile product that contains regulated PFAS chemicals. Defines juvenile product as a product that is designed for use by infants and children under 12 years of age, including pillows, highchair, play yard, stroller, and mattress, as specified. [HSC § 108944-108947].

FISCAL EFFECT: None.

COMMENTS:

1) PURPOSE OF THIS BILL. According to the author, despite pure sodium nitrite having no legitimate application in everyday life, teenagers have been able to easily purchase the chemical in cheap, concentrated forms through several different retail platforms. The widespread availability of such a deadly compound has undeniably worsened our mental health crisis by providing teenagers in a moment of struggle, an easy means of taking their own lives. The author states that this bill addresses this issue by raising the purchase age of sodium nitrite, restricting the pureness of the chemical being sold, and ensuring that platforms have strong age verification systems in place. The author concludes that this bill will dissuade young people from making a potentially devastating and irreversible decision.

2) BACKGROUND.

- a) **Sodium Nitrite.** Sodium nitrite is an odorless, yellowish white, crystalline (sand-like) granule, rod, or powder. It is used in heat transfer salts, metal treatment and finishing, as a color fixative and preservative for meats and fish, in pharmaceuticals, and as an antidote for Cyanide poisoning. Sodium nitrite can affect an individual when inhaled and may be absorbed through the skin. Contact can irritate the skin and eyes; inhaling sodium nitrite can irritate the nose and throat; high levels of this substance can reduce the blood's ability to transport oxygen, causing headache, fatigue, dizziness, nausea, vomiting, diarrhea, abdominal pain, and a blue color to the skin and lips (methemoglobinemia). Exposure to very high levels can cause trouble breathing, collapse and even death.

When it comes to food, it should be noted that sodium nitrite is not the same as sodium nitrate. Although both are salts and both act as food preservatives, sodium nitrite is

commonly used to cure ham and bacon and also prevents the growth of *Clostridium botulinum*, the bacteria which causes botulism. On the other hand, sodium nitrate is often added to jerky, bacon and luncheon meats. Sodium nitrate has antimicrobial properties when used as a food preservative. It is also found naturally in leafy green vegetables.

- b) Suicides related to use of sodium nitrite.** Ingestion of large amounts of sodium nitrite can cause methemoglobinemia, a blood disorder in which too little oxygen is delivered to the cells, which can lead to hypoxia (oxygen deficiency) and sometimes death. According to a 2022 article entitled “Survival after Self-Poisoning with Sodium Nitrite: A Case Report, (Case Report)” the California Poison Control System (CPCS) was consulted on five patients who intentionally ingested sodium nitrite between May and November of 2019. All cases acquired the product from online vendors. There were no cases reported to CPCS in the five years prior.

According to the American’s Poison Centers, which represents 55 poison centers across the country, poison control centers across the U.S. reported a 253% increase in self-poisoning with nitrites and nitrates and a 166% increase in fatalities in 2021 in comparison to 2018. This is at the same time there is increased accessibility of sodium nitrite through online vendors and recommendations frequently shared in online communities that it can be used as an effective method of suicide.

According to the author, while there is no legitimate use for sodium nitrite in concentrations of purity above 10%, major retailers like Amazon have been selling it at levels of purity up to 99%. Last year, the parents of a 16-year old and parents of 17-year old filed a complaint in California state court alleging that Amazon assisted in the deaths of two minors by selling them pure forms of sodium nitrite, some in such high concentrations that a single teaspoon could be fatal.

- c) Methylene blue.** The identification of sodium nitrite ingestion and antidote administration are time sensitive. A thorough history from the patient, family, and friends can delineate the type of ingestion. Finding a container with the product may also be helpful, if available. Methylene blue is administered intravenously. It is a reducing agent and converts methemoglobin to hemoglobin and restores normal oxygen transport by the red blood cells. According to the National Institutes of Health, the treatment dose is typically one to two mg/kg intravenously over five minutes, with a maximum dose of seven mg/kg, even in cases of severe methemoglobinemia.
- d) Age verification requirements.** AB 2273 (Wicks), Chapter 320, Statutes of 2022, enacts the California Age-Appropriate Design Code Act (CAADC Act), which, commencing July 1, 2024, requires a business that provides an online service, product, or feature likely to be accessed by children to comply with specified requirements, including a requirement to configure all default privacy settings offered by the online service, product, or feature to the settings that offer a high level of privacy, unless the business can demonstrate a compelling reason that a different setting is in the best interests of children, and to provide privacy information, terms of service, policies, and community standards concisely, prominently, and using clear language suited to the age of children likely to access that online service, product, or feature.

- 3) **RELATED LEGISLATION.** AB 1210 (Kalra) prohibits a person or entity from selling or offering for sale in this state sodium nitrite at a purity level that exceeds 10% without specified warning labels on the immediate container and on the outside of the shipping package
- 4) **PREVIOUS LEGISLATION.** AB 2273 enacts the CAADC Act, which, commencing July 1, 2024, requires a business that provides an online service, product, or feature likely to be accessed by children to comply with specified requirements, including a requirement to configure all default privacy settings offered by the online service, product, or feature to the settings that offer a high level of privacy, unless the business can demonstrate a compelling reason that a different setting is in the best interests of children, and to provide privacy information, terms of service, policies, and community standards concisely, prominently, and using clear language suited to the age of children likely to access that online service, product, or feature.
- 5) **AMENDMENTS.** The Committee recommends and the author has agreed to amend the provisions relating to minors, as follows: to apply to those under 18 and only for online sales; for these provisions to be effective July 1, 2024 consistent with the CAADC Act; and, to clarify that the defense only applies to online sales to minors.

REGISTERED SUPPORT / OPPOSITION:**Support**

None on file.

Opposition

None on file.

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