Product Stewardship Summary

Arsenic (III) oxide

Chemical name	Arsenic (III) oxide
Synonyms	Arsenic trioxide, Arsenous oxide, White arsenic
CAS number	1327-53-3
EINECS number	215-481-4
Revision number	1-2026

Chemical identification and uses

Arsenic (III) oxide is a white odorless powder that occurs naturally in minerals and is also produced industrially. It is mainly used as a precursor to other arsenic compounds, such as pesticides, herbicides, wood preservatives, and pharmaceuticals. It is also used as a glass additive, a pigment, a catalyst, and a semiconductor.

Potential exposures

Occupational exposure to arsenic (III) oxide may occur during its production, processing, handling, and use. Environmental exposure to arsenic (III) oxide may occur through inhalation of dust, ingestion of contaminated food or water, or dermal contact with soil or products containing arsenic.

Human health hazards

Arsenic (III) oxide is classified as a human carcinogen by the International Agency for Research on Cancer (IARC) and the U.S. Environmental Protection Agency (EPA). It can cause lung, skin, bladder, liver, and kidney cancers, as well as other types of cancers. It can also cause skin irritation and eye damage.

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Environmental health hazards

It can pose a risk to aquatic and terrestrial organisms. The methods for determining biodegradability are not applicable to inorganic substances such as Arsenic oxide.

For more detailed safety and regulatory information, please refer to the Safety Data Sheet (SDS) or contact Solstice at PSCustomerCare@Solstice.com. Additional information can also be found on PubChem.

Pubchem: Arsenic oxide