

Arsenic (III) oxide

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| 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.

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Material Safety Data Sheet which should be consulted before use of the chemical. The product stewardship summary does not supplant or replace required regulatory and/or legal communication documents. Statements concerning use of our products are made without warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.



Product Stewardship Summary

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](#)

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