



Lead tetrafluoroborate

Product Stewardship Summary

Chemical Name:	Lead tetrafluoroborate
Synonyms:	Lead fluoroborate; Lead borofluoride; Lead bis(tetrafluoroborate); Lead(II) tetrafluoroborate; Lead(2+) tetrafluoroborate(1-); Borate(1-), tetrafluoro-, lead (2+); Borate(1-), tetrafluoro-, lead (2+) (2:1); Lead tetrafluoroborate; Lead boron fluoride; and Lead fluoroborate solution
CAS Number:	13814-96-5
EC (EINECS) Number:	237-486-0
Revision number:	1-2024

- **Chemical identification and uses:** Lead tetrafluoroborate occur in the form of a crystalline powder however the Honeywell product is a 50% solution, a clear, colorless, odorless liquid that is stable under normal conditions of use and storage. Lead tetrafluoroborate is used as a catalyst in production of linear polyesters, a curing agent for epoxy resins; in electroplating solutions for coating metals with lead, in manufacturing flame-retardants, for electrolytic generation of boron, and in preparations for glazing frits. It is soluble in water but incompatible with alkalis, strong acids, reactive metals, cyanides and sulfites.
- **Potential exposures:** Occupational exposure to lead tetrafluoroborate may occur at either a lead fluoroborate production facility or at other manufacturing, packaging or storage facilities that handle lead tetrafluoroborate. Persons involved in maintenance, sampling and testing activities, or in the loading and unloading of lead tetrafluoroborate packages are at risk of exposure. The 50% solution when used in electroplating operations may generate airborne mists, but worker exposure can be controlled with the use of proper general mechanical ventilation and personal protective equipment. Good manufacturing and industrial hygiene practices should be followed to prevent or reduce contact. See the Safety Data Sheet (SDS) for additional information.
- **Human Health hazards:** According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS), lead tetrafluoroborate is corrosive to the eyes, skin, and mucous membranes. Acute oral exposure may cause corrosion of the mucous membranes, esophagus, and stomach. Skin contact may produce severe burns, ulceration, and scarring. Short-term inhalation exposure to aerosols or vapors of lead fluoroborate may cause severe respiratory tract irritation, inflammation and pulmonary edema. Chronic (long-term) exposure to lead fluoroborate is expected to cause alterations of the blood and immune systems, kidney function effects, neurotoxic and neurobehavioral effects, cerebrovascular effects, reproductive and developmental effects, bone development effects and dental caries. Chronic exposure can also cause deposits of fluorides in bones and teeth, a condition called fluorosis, causing pain, disability and discoloration or mottling of teeth. Lead tetrafluoroborate is classified as a carcinogen and reproductive toxicant and can cause toxicity to adrenal gland upon repeated exposure. One should refer to the Safety Data Sheet (SDS) for additional information and any specific protective information.

- **Environmental Health hazards:** Lead tetrafluoroborate is very toxic to aquatic life with long lasting effects.
- Please contact us at ESSPSCustomerCare@Honeywell.com for more information. Additional information may also be found at the following links:

[Pubchem - Lead\(II\) tetrafluoroborate](#)

[ATSDR Toxicity profiles of Lead and Fluorides](#)

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.