

PRODUCT STEWARDSHIP SUMMARY

Boron Trifluoride Methanol Complex



Chemical Name:	Boron Trifluoride Methanol Complex
Synonyms:	Trifluoro(methanol)boron; Boron, trifluoro(methanol)-, (T-4)-
CAS Number:	373-57-9
CAS Name:	Boron, trifluoro(methanol)-, (T-4)-
EC (EINECS) Number:	206-766-4
Last Revision Date:	February 2019

- Boron trifluoride methanol complex is utilized in various laboratory applications. For example, boron trifluoride methanol complex is used as a reagent for the gas chromatography analysis of ritalinic acid. It also can be used as a reagent for the mild deacetylation of amines.
- Exposure to boron trifluoride methanol complex can occur in laboratories and industrial/manufacturing facilities where the chemical solution is handled. Workers may be exposed primarily through dermal and ocular contact and inhalation of vapors. Good manufacturing and industrial hygiene practices should be followed to prevent or reduce exposure. Workplace exposure limits for boron trifluoride and methanol have been established for use in worksite safety programs. See the Safety Data Sheet (SDS) for additional information.
- Boron trifluoride methanol complex is a colorless to yellow liquid with a strong pungent odor. It is a flammable product that should be kept away from fire, sparks and heated surfaces. For this complex, the equivalent weight percent ratio is approximately 32% methanol and 68% boron trifluoride.
- This product is toxic if ingested or inhaled. Boron trifluoride methanol complex may cause damage to organs, especially the kidneys, with prolonged or repeated exposure. Boron trifluoride breaks down into boric and fluoroboric acid (strong corrosive acids) and may form fluoride ions under extreme conditions. Fluoride ions can cause severe systemic effects including hypocalcemia, hypomagnesemia and hyperkalemia resulting in electrolyte imbalance and cardiac arrhythmias.

- Boron trifluoride methanol complex is hazardous to the nervous system and eyes. This is related to the methanol in the complex. Workers exposed to methanol has been shown to exhibit headache, dizziness and eye damage.
- Because of its strong acidic properties, boron trifluoride methanol complex is a corrosive chemical and contact can severely irritate and burn the skin and eyes. It can also irritate the nose and throat and respiratory tract after exposure by inhalation. Repeated exposure by inhalation can irritate the lungs and higher exposures may cause a build-up of fluid in the lungs (pulmonary edema).
- There are no currently known genotoxic hazards associated with boron trifluoride methanol complex.
- Boron trifluoride methanol complex is not known to cause reproductive or developmental harm.
- Boron trifluoride methanol complex is not identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.
- No quantitative data are available on the toxicity of this product to aquatic life. Boron trifluoride methanol complex is not classified as being hazardous to the environment.
- Please **contact us** for more information. Additional information may also be found at the following links:

European Chemicals Agency – Substance information- Trifluoro (methanol) boron

New Jersey Hazardous Substance Fact Sheet- Boron Trifluoride

NICAS – Methanol: Human Health Tier II Assessment

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.