



MATERIAL SAFETY DATA SHEETS

289

Formothion

1. CHEMICAL IDENTITY

Chemical Name : Formothion

Chemical Classification: Toxic

Trade Name :

Synonyms: G-38, Phosphorodithioate, Aflix, Afliz (Sandoz), Anthio, Anthio 25

Formula : C₆H₁₂NO₄PS₂

CAS No: 2540-82-1

UN No: 3018

Regulated Identification

Shipping Name :

Hazchem Code : 2X

Codes / Label : Class 6.1, Toxic

Hazardous Waste ID No :

HAZARDOUS INGREDIENTS	C.A.S. No.	HAZARDOUS INGREDIENTS	C.A.S. No.
1 Formothion	2540-82-1	3	
2		4	

2. PHYSICAL / CHEMICAL DATA

Boiling Pt. °C:	Decomposes on distillation	Physical State:	Liquid or crystalline	Appearance:	Viscous yellow oil or a crystalline mass.
Melting Pt °C:	25-26	Vapour Pressure @ 35°C mmHg:	8.4757e-07 mmHg @ 20 deg C	Odour:	Odourless
Vapour Density(Air =1):		Solubility in water at 30°C g/100ml:	Insoluble	Others:	Solidifies at about 25 deg C.. Completely miscible with acetone, chloroform, ethanol, methanol, xylene, ethers; slightly soluble in hexane; very sl sol in ligroin and paraffin oil.

Specific Gravity (Water =1): 1.361 @ 20 deg C

pH :

3. FIRE / EXPLOSION HAZARD DATA

Flammability :

LEL:

Flash Point °C in OC:

TDG Flammability:

UEL:

Flash Point °C in CC:

Autoignition Temperature °C :

Explosion sensitivity to impact:

Explosion sensitivity to static Electricity:

Hazardous Combustion Products :

Hazardous Polymerization :

Combustible Liquid:

Explosive Material:

Corrosive Material

Flammable Material:

Oxidiser :

Others:

Pyrophoric Material:

Organic Peroxide :

4. REACTIVITY DATA

Chemical Stability : Stable

Incompatibility with other material :

Reactivity : Hydrolyzed by water to dimethoate and (dimethoxyphosphinothioylthio)acetic acid.

Hazardous Reaction Products :

5. HEALTH HAZARD DATA

Routes of entry: Inhalation, Ingestion, Skin and Eyes

Effects of Exposure / Symptoms:

Inhalation : Formothion is one of the least toxic systemic organophosphates. Formothion is a compound of low to moderate toxicity. It causes the depression of cholinesterase, leading to accumulation of acetylcholine in the nervous system, which is believed to be responsible for the symptoms. **Ingestion** : Nausea, vomiting, abdominal cramps, and diarrhea are common muscarinic effects. **Eye** : Constriction of the pupil, tearing, and blurred vision are common. Prolonged dialation of the pupils may occur. Salivation commonly occurs.

Emergency Treatment :

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Skin: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician

LD50 (oral-rat) mg/kg:

STEL:

LC50 (rat) mg/kg: 0.027 mg/liter
(Mouse)

Odour Threshold:

Permissible Exposure Limit:

TLV (ACGIH) :

NFPA Hazard	Health	Flammability	Reactivity	Special
Signals		1	1	

6. PREVENTIVE MEASURES

Personal Protective Equipment : Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Wear chemical resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Handling : All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage : Keep in a cool, dry, dark location in a tightly sealed container or cylinder. Keep away from incompatible materials, ignition sources and untrained individuals. Secure and label area. Protect containers/cylinders from physical damage.

Precautions :

7. EMERGENCY / FIRST AID MEASURES

FIRE:

Fire Extinguishing Media :

Special Procedure :

Unusual Hazards : When heated to decomposition, it emits very toxic fumes of nitrogen oxides, phosphorus oxides and sulfur oxides

EXPOSURE: First Aid Measures:

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Skin: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician

Antidotes / Dosages:

SPILLS :

Steps To Be Taken : Stop leak if you can do so without risk. Use water spray to reduce vapors. Small spills: absorb with noncombustible absorbent material. Dry spills: with clean shovel, place material into dry containers; move containers from spill area. Large spills: dike

Waste Disposal Method:

8. ADDITIONAL INFORMATION / REFERENCES

9. MANUFACTURERS / SUPPLIERS DATA

NAME OF FIRM :

Contact person

MAILING ADDRESS :

in Emergency :

TELEPHONE / TELEX NOS :

Local Bodies involved :

TELEGRAPHIC ADDRESS :

Standard Packing :

OTHERS :

Trem Card Details / Ref :

10. DISCLAIMER

Information contained in this material data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is up to the manufacturer/ seller to ensure that the information contained in the material safety data sheet is relevant to the product manufactured / handled or sold by him as the case may be. The Government makes no warranties expressed or implied in the respect of the adequacy of this document for any particular purpose.

End of document

Total No. of Pages: 3