

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



Publication date: January 2000 Sheet number: BES/SA 0011 Revised on: 29 May 2007 Revision number: 2

1) IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Commercial name: **BAYTHION® LIQUID**

Company identification: Bayer (Pty.) Ltd.
Reg. No. 1968/011192/07
P.O. Box 143, Isando 1600
SOUTH AFRICA

Company contact numbers: +27 11 365 8600
+27 11 921 5911

Tygerberg Poison Centre: +27 21 931 6129

2) COMPOSITION / INFORMATION ON THE INGREDIENTS

Chemical nature: Emulsifiable concentrate (EC)
Phoxim 500 g/l

Hazardous components:

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases	Concentration [%]
Phoxim (iso)	14816-18-3 238-887-3	Xn	R22	51,00
Butan-1-ol	71-36-3 200-751-6	Xn	R10, R22, R37/38, R41, R67	8,00

3) HAZARD IDENTIFICATION OF THE PRODUCT

Risk advice to man and the environment:
Flammable.
Harmful by inhalation and if swallowed.
Risk of serious damage to eyes.
Irritating to respiratory system.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4) FIRST AID MEASURES

General advice: This product contains an anticholinesterase compound. Do not use if under medical advice not to work with such compounds. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation: Move to fresh air in case of accidental inhalation of vapours or decomposition products. If there is a breathing problem give oxygen. Seek medical advice immediately.

Skin contact: Take off all contaminated clothing immediately. Wash off with soap and water. Call a physician immediately.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Wash out mouth with water. Induce vomiting only, if: 1. patient is fully conscious, 2. medical aid is not readily available, 3. a significant amount (more than a mouthful) has been ingested and 4. time since ingestion is less than 1 hour. (Vomit should not get into the respiratory tract). Call in a physician immediately and show him the Safety Data Sheet.

NOTES TO PHYSICIAN:

Symptoms: Symptoms of cholinesterase inhibition (gastrointestinal disturbances, dyspnoea, narrowing of the respiratory passages, bradycardia, miosis, clonic spasms).

Treatment: Monitoring of respiratory, cardiac and central nervous system.
Observe specific parameters: red blood cell and plasma cholinesterase.
If ingested, irrigate the stomach using activated charcoal in addition.
Artificial respiration and/or oxygen may be necessary.
Against convulsions: Give diazepam: for adults 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v.
Antidotes to be given atropin and pralidoxim/obidoxim.

5) FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray, carbon dioxide (CO₂), foam, sand.

Specific hazards during fire fighting:
In the event of fire the following can be released: Hydrogen cyanide (hydrocyanic acid), carbon monoxide (CO), phosphorus oxides (e.g.

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



	phosphorus pentoxide), sulphur dioxide (SO ₂), nitrogen oxides (NO _x).
Special protective equipment for fire-fighters:	In the event of fire and/or explosion do not breathe fumes. Use breathing apparatus.
Further information:	Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.
6) ACCIDENTAL RELEASE MEASURES	
Personal precautions:	Avoid contact with spilled product or contaminated surfaces. Wear personal protective equipment. Unprotected persons must be kept away. Keep away sources of ignition.
Environmental precautions:	Do not discharge into the drains/surface water/groundwater.
Methods for cleaning up:	Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material). Clean contaminated floors and objects thoroughly, observing environmental regulations Pack spilled material in suitable containers for recovery or disposal.
Additional advice:	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8.
7) HANDLING AND STORAGE	
Handling:	
Advice on safe handling:	Use only in area provided with appropriate exhaust ventilation.
Advice on protection against fire and explosion:	Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.
Storage:	Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only.
Advice on common storage:	Keep away from food, drink and animal feedingstuffs.
Storage stability:	Storage temperature: < 40 °C Other data: Do not store at temperatures below -10 °C.
Suitable materials:	Only use containers that are approved specifically for the substance/ product.
8) EXPOSURE CONTROLS AND PERSONAL PROTECTION	
If product is handled while not enclosed, and if skin contact may occur:	
Respiratory protection:	Full mask with filter ABEK-P2
Hand protection:	Protective gloves for chemicals
Occupational health:	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and at the end of workday. Remove soiled or soaked clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).
9) PHYSICAL AND CHEMICAL PROPERTIES	
Appearance :	Brown clear liquid
Odour :	Aromatic
Vapour pressure :	Approx. 3,5 hPa at 20 °C
Density :	Approx. 1,13 g/cm ³ at 20 °C
Solubility in water :	Not miscible
Partition coefficient :	Log P octanol / water = phoxim: 3,38
Flash point :	38 °C
Ignition temperature:	294 °C



10) STABILITY AND REACTIVITY

Thermal decomposition:
At 100°C (DTA, heating rate 3 °C/min in glass)
At 80°C (DTA, heating rate 0,3 °C/min in glass)

11) TOXICOLOGICAL INFORMATION

Acute toxicity:
LD₅₀ oral, rat: > 2000 mg/kg (Bayer) *
LD₅₀ dermal, rat: > 5000 mg/kg (Bayer) *

Irritation of the skin/rabbit: Non-irritant (Bayer) *
Irritant to the mucous membranes/rabbit: Non-irritant (Bayer) *

* Derived from active ingredient data
The formulation described in this data sheet was classified by the conventional method.

12) ECOLOGICAL INFORMATION

Fish toxicity: (active ingredient)
LC₅₀: <1,0 ppm (96 h): Rainbow trout (*Salmo gairdneri*) (Bayer)
LC₅₀: <1,0 ppm (96 h): (*Lepomis macrochirus*) (Bayer)
LC₅₀: approx. 1,0 ppm (96 h): Carp (*Cyprinus carpio*) (Bayer)

Toxicity for *Daphnia* :
EC₅₀: 0,00081 mg/l (48 h); Water flea (*Daphnia magna*) (Bayer)

Toxicity for algae :
Growth-inhibition: EC₅₀: 0,62 mg/l (96 h); Green algae (*Scenedesmus subspicatus*) (Bayer)

13) DISPOSAL CONSIDERATIONS

In cases where larger amounts of the product have become unusable, it should be established whether material utilisation is possible (if necessary, consult the manufacturer/suppliers). Small amounts of the product and uncleaned empty packaging should be packaged and sealed, labeled and transferred to a suitable incinerator in accordance with the local regulations.

14) TRANSPORT INFORMATION

Un No.: 1993
Class: III
MFAG: **
Subsidiary risk: ●
Packaging group: III
Declaration for land shipment: 1993 FLAMMABLE LIQUID, N.O.S.
Declaration for sea shipment: 1993 FLAMMABLE LIQUID, N.O.S.
Declaration for shipment by air: 1993 FLAMMABLE LIQUID, N.O.S.

15) REGULATORY INFORMATION

Risk phrases: R 10, 23/24/25.
Safety phrases: S 1/2, 7, 13, 20/21, 23, 28, 35.
WHO Classification: II (moderately hazardous)

16) OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

Consult the label for directions for use.

THIS INFORMATION CONCERNS ONLY THE PRODUCT AS CONFORMING TO ITS SPECIFICATIONS AND LIMITED TO THE USES HEREIN STATED.

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



This sheet complements the technical sheet of use but does not replace it. The information contained on this sheet is based on knowledge of the product on the date of publication. It is given in good faith.
If the logo in this document is not in colour, this document is a photocopy and could be out of date.