

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.06.2013

Version number 1

Revision: 11.06.2013

1 Identification of the substance/mixture and of the company/undertaking

· **Product identifier**

· **Trade name:** **Fenthion Assay Standard**

· **Reference number:** *Cat 156*

· **CAS Number:**

55-38-9

· **EC number:**

200-231-9

· **Index number:**

015-048-00-8

· **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

· **Application of the substance / the preparation** *Reference material for laboratory use only*

· **Manufacturer/Supplier:**

British Pharmacopoeia Commission

MHRA

10 South Colonnade, Canary Wharf

London E14 4PU

United Kingdom

Tel : +44 (0)20 3080 6561

eMail: bpcrs@mhra.gov.uk

· **Further information obtainable from:** *eMail: bpcrs@mhra.gov.uk*

· **Emergency telephone number:** *+44 (0) 20 3080 6561 (Monday - Friday: 8am - 5pm)*

2 Hazards identification

· **Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3

H331 Toxic if inhaled.



GHS08 health hazard

Muta. 2

H341 Suspected of causing genetic defects.

STOT RE 1

H372 Causes damage to organs through prolonged or repeated exposure.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4

H302 Harmful if swallowed.

Acute Tox. 4

H312 Harmful in contact with skin.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T; Toxic

R23-48/25: Toxic by inhalation. Toxic: danger of serious damage to health by prolonged exposure if swallowed.

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Xn; Harmful

R21/22-68: Harmful in contact with skin and if swallowed. Possible risk of irreversible effects.



N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Muta. Cat. 3

· **Information concerning particular hazards for human and environment:** Not applicable.

· **Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS06



GHS08



GHS09

· **Signal word** Danger

· **Hazard statements**

H302+H312 Harmful if swallowed or in contact with skin.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

55-38-9 fenthion (ISO)

· **Identification number(s) -**

· **EC number:** 200-231-9

· **Index number:** 015-048-00-8

· **RTECS:** TF 9625000

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

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4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.

Remove breathing equipment only after contaminated clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient in recovery position for transport.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse mouth. Do not induce vomiting.

Call for a doctor immediately.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.
Store only in the original receptacle.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** Lists used were valid at the time of SDS preparation.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/
the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:** Safety glasses

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Oily
· Colour:	Colourless
· Odour:	Like rotten eggs (mercaptans)
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	87/0.014 mbar °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure at 20 °C:** 0.00004 hPa

· Density at 20 °C:	1.25 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water at 20 °C:** 0.0063 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** Stable under normal conditions.

· **Chemical stability** Stable under normal conditions.

· **Thermal decomposition / conditions to be avoided:**

Formation of toxic gases is possible during heating or in case of fire.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Heat.

· **Incompatible materials:** Strong oxidizing agents.

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- **Hazardous decomposition products:** Formation of toxic gases is possible during heating or in case of fire.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

Oral	LD50	180 mg/kg (rat)
Dermal	LD50	330 mg/kg (rat)
	LD 50 (Intraperitoneal)	260 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:** No irritating effect.

- **on the eye:** No irritating effect.

- **Sensitization:** No sensitizing effects known.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Muta. 2

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

LC50/96 h	0.7 mg/l (fish)
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- **Persistence and degradability** No further relevant information available.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Very toxic for fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

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- **Uncleaned packaging:**
- **Recommendation:** Dispose of in accordance with national regulations.

14 Transport information

· UN-Number	UN3018
· ADR, IMDG, IATA	3018 ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (fenthion (ISO)), ENVIRONMENTALLY HAZARDOUS
· ADR	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (fenthion (ISO)), MARINE POLLUTANT
· IMDG	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (fenthion (ISO)), MARINE POLLUTANT
· IATA	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (fenthion (ISO))

· **Transport hazard class(es)**

· **ADR, IMDG**



· Class	6.1 Toxic substances.
· Label	6.1

· **IATA**



· Class	6.1 Toxic substances.
· Label	6.1

· **Packing group**

· ADR, IMDG, IATA	III
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· Environmental hazards:	Environmentally hazardous substance, liquid; Marine Pollutant
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· Marine pollutant:	Yes (PP)
	Symbol (fish and tree)

· Special marking (ADR):	Symbol (fish and tree)
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· Special precautions for user	Warning: Toxic substances.
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· Danger code (Kemler):	60
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· EMS Number:	F-A,S-A
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· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
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· **Transport/Additional information:**

· ADR	
· Limited quantities (LQ)	5L
· Transport category	2
· Tunnel restriction code	E

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· **UN "Model Regulation":** UN3018, ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (fenthion (ISO)), ENVIRONMENTALLY HAZARDOUS, 6.1, III

15 Regulatory information

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. British Pharmacopoeia Commission Office makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· **Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.