

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 21.03.2014

Version number 1

Revision: 21.03.2014

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

· **1.1 Product identifier**

· **Trade name:** Fosthiazate

· **Reference number:** DRE-CA13944500

· **CAS Number:**

98886-44-3

· **Index number:**

015-168-00-0

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

No further relevant information available.

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

· **Manufacturer/Supplier:**

LGC Limited

Queens Road

Teddington

Middlesex TW11 0LY

UNITED KINGDOM

Tel : +44 (0) 20 8943 7000

Fax : +44 (0) 20 8943 2767

eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

· **Further information obtainable from:**

Product safety department

eMail : sds-request@lgcgroup.com

· **1.4 Emergency telephone number:** +44 (0) 20 8943 7000 (Monday - Friday : 8am - 5pm)

**SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

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



GHS06 skull and crossbones

Acute Tox. 3

H301 Toxic if swallowed.

Acute Tox. 3

H331 Toxic if inhaled.



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

H312 Harmful in contact with skin.

Skin Sens. 1

H317 May cause an allergic skin reaction.

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



T; Toxic

R23/25-39: Toxic by inhalation and if swallowed. Danger of very serious irreversible effects.



Xn; Harmful

R21:

Harmful in contact with skin.



Xi; Irritant

R41:

Risk of serious damage to eyes.

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*Xi; Sensitising*

*R43: May cause sensitisation by skin contact.*



*N; Dangerous for the environment*

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

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

**· 2.2 Label elements**

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

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

**· Hazard pictograms**



GHS06



GHS09

**· Signal word Danger**

**· Hazard statements**

*H301+H331 Toxic if swallowed or if inhaled.*

*H312 Harmful in contact with skin.*

*H317 May cause an allergic skin reaction.*

*H410 Very toxic to aquatic life with long lasting effects.*

**· Precautionary statements**

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

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

*P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.*

*P321 Specific treatment (see on this label).*

*P405 Store locked up.*

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

**· Additional information:**

*EUH070 Toxic by eye contact.*

**· 2.3 Other hazards**

**· Results of PBT and vPvB assessment**

**· PBT:** Not applicable.

**· vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

**· 3.1 Chemical characterization: Substances**

**· CAS No. Description**

*98886-44-3 fosthiazate (ISO)*

**· Identification number(s) -**

**· Index number:** 015-168-00-0

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

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### SECTION 4: First aid measures

**4.1 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 a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

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

**5.3 Advice for firefighters****Protective equipment:**

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.**6.2 Environmental precautions:**

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

Dilute with plenty of water.

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

**6.3 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.

**6.4 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.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

Ensure good ventilation/extraction at the workplace.

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- 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.
- **7.2 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.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 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.
- **8.2 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.
- 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:



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Light yellow

· Odour:	Odourless
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· Odour threshold:	Not determined.
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· pH-value:	Not determined.
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· Change in condition

Melting point/Melting range:	<25 °C
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Boiling point/Boiling range:	Not determined.
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· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not determined.
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· Ignition temperature:

Decomposition temperature:	Not determined.
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· Self-igniting:	Not determined.
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· Danger of explosion:	Not determined.
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· Explosion limits:

Lower:	Not determined.
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Upper:	Not determined.
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· Vapour pressure:	Not determined.
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· Density at 20 °C:	1.24 g/cm <sup>3</sup>
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· Relative density	Not determined.
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· Vapour density	Not determined.
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· Evaporation rate	Not determined.
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· Solubility in / Miscibility with water at 20 °C:	9.85 g/l
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· Partition coefficient (n-octanol/water):	1.78
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· Viscosity:

Dynamic:	Not determined.
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Kinematic:	Not determined.
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· 9.2 Other information	No further relevant information available.
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### SECTION 10: Stability and reactivity

· 10.1 Reactivity Stable under normal conditions.

· 10.2 Chemical stability Stable under normal conditions.

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- **Thermal decomposition / conditions to be avoided:**  
Formation of toxic gases is possible during heating or in case of fire.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Heat.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:**  
Formation of toxic gases is possible during heating or in case of fire.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

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

Oral	LD50	57 mg/kg (rat)
Dermal	LD50	861 mg/kg (rat)
Inhalative	LC50/4 h	0.558 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.

### SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

EC50/48 h	0.279 mg/l (daphnia)
LC50/96 h	114 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 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) (Self-assessment): 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
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **European waste catalogue**  
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packaging:**
- **Recommendation:** Dispose of in accordance with national regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN2810
- **ADR** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (fosthiazate (ISO)), ENVIRONMENTALLY HAZARDOUS
- **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (fosthiazate (ISO)), MARINE POLLUTANT
- **IATA** TOXIC LIQUID, ORGANIC, N.O.S. (fosthiazate (ISO))

· **14.3 Transport hazard class(es)**

· **ADR, IMDG**



- **Class** 6.1 Toxic substances.
- **Label** 6.1

· **IATA**



- **Class** 6.1 Toxic substances.
- **Label** 6.1

· **14.4 Packing group**

- **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:**

Environmentally hazardous substance, liquid; Marine Pollutant

· **Marine pollutant:**

Yes (P)  
Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Toxic substances.

· **Danger code (Kemler):**

60

· **EMS Number:**

F-A,S-A

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Excepted quantities (EQ):**

E4

· **Limited quantities (LQ)**

100 ml

· **Transport category**

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· <b>Tunnel restriction code</b>	D/E
· <b>UN "Model Regulation":</b>	UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (fosthiazate (ISO)), ENVIRONMENTALLY HAZARDOUS, 6.1, II

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Philippines Inventory of Chemicals and Chemical Substances** Substance is not listed.
- **Australian Inventory of Chemical Substances** Substance is not listed.
- **Standard for the Uniform Scheduling of Drugs and Poisons** Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 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. LGC 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

P: Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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.