

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Microcystin-LW solution

CAS-No. : 157622-02-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

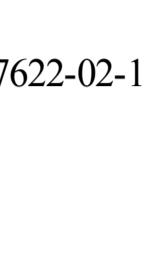
Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. May cause sensitization by skin contact.

2.2 Label elements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

Highly flammable.

R11

Toxic by inhalation, in contact with skin and if swallowed.

R23/24/25

Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R39/23/24/25

May cause sensitization by skin contact.

R43

May cause sensitization by skin contact.

S-phrase(s)

Keep away from sources of ignition - No smoking.

S16

Wear suitable protective clothing and gloves.

S36/37

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S45

(show the label where possible).

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms : Algae bloom toxin

Cyanobacterial toxin

Biotoxin

Formula : C54H72N8O12C54H72N8O12

Component

Classification

Concentration

Methanol

CAS-No. 67-56-1

EC-No. 200-659-6

Flam. Liq. 2; Acute Tox. 3;

>= 99 %

STOT SE 1; H225, H301,

H311, H331, H370

F, T, R11 - R23/24/25 -

R39/23/24/25

Microcystin-LW

CAS-No. 157622-02-1

Acute Tox. 1; Acute Tox. 2;

<= 1 %

Skin Irrit. 2; Eye Irrit. 2; Resp.

Sens. 1; STOT SE 3; H300,

H310, H315, H319, H330,

H334, H335

T+, R26/27/28 - R36/37/38 -

R43

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Effects due to ingestion may include: Nausea, headache, Vomiting, Gastrointestinal disturbance, Dizziness, Weakness, Confusion, Drowsiness, Unconsciousness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Do not let product enter drains.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: -20 °C

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting/freezing point no data available

f) Initial boiling point and boiling range 64 - 65 °C

g) Flash point 11 °C

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower flammability or explosive limits Upper explosion limit: 36 % (V)

Lower explosion limit: 6 % (V)

k) Vapour pressure no data available

l) Vapour density no data available

m) Relative density 0,791 g/cm³

n) Water solubility no data available

o) Partition coefficient: n-octanol/water no data available

p) Autoignition temperature no data available

q) Decomposition temperature no data available

r) Viscosity no data available

s) Explosive properties no data available

t) Oxidizing properties no data available

u) Other safety information no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatibilites

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

May be harmful if inhaled. May cause respiratory tract irritation.

Skin corrosion/irritation

May be harmful if swallowed. May cause skin irritation.

Serious eye damage/eye irritation

May cause serious eye irritation.

Reproductive toxicity

Probable, possible or confirmed human carcinogen by IARC.

Respiratory or skin sensitization

May cause respiratory or skin sensitization.

Specific target organ toxicity - single exposure

May cause damage to the heart, liver and kidneys.

Specific target organ toxicity - repeated exposure