

Release : 1.4
 Reviewed on : 28.02.2012
 Replaces the version of : 20.01.2012
 Date of Print : 19.11.2013
 Product : Furoxona®, liquid (Bulk)

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

Designation : **Furoxona®, liquid (Bulk)**

Synonyms : Active ingredient: Furazolidone
 Furoxona® drops, Furoxona® suspension

Identified uses : Solution for production of finished medicinal products.

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2. Hazards Identification

Classification according to Regulation (EC) No. 1272/2008:

Carcinogenicity, Category 1B,
 Skin sensitization, Category 1,
 Acute aquatic toxicity, Category 1,
 Chronic aquatic toxicity, Category 2,

Classification (67/548/EWG,1999/45/EG):

R45 May cause cancer.
 R43 May cause sensitization by skin contact.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Labelling according Regulation (EC) No 1272/2008 [CLP]:

Pictogram(s)



Danger





Hazard Statement(s):	H350 H317 H411	May cause cancer. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.
Safety precaution(s):	P201 P202	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

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P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P273 Avoid release to the environment.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved incineration plant.

Labelling according to EEC Directive (67/548/EWG,1999/45/EG):

	N	T
Symbol(s):	 Dangerous for the environment	 Toxic
R phrase(s)	R45 R43 R51/53	May cause cancer. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S phrase(s)	S53 S36/37/39 S45 S61	Avoid exposure - obtain special instructions before use. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/ Safety data sheets.

3. Composition/Information on Ingredients
Hazardous ingredients

Chemical name	Classification	GHS classification	Concentration
3-((5-Nitro-2-furanyl)methylene)amino)-2-oxazolidone	N, Xi; R36, R38, R43, R45, R50/53	Category 1A, H350 Category 1, H317 Category 2, H319 Category 2, H315 Category 1, H410	< 3%
Molecular formula:	C8-H7-N3-O5	CAS-No.	67-45-8
Molecular weight:	225,16	EC-No.:	200-653-3

Chemical name	Classification	GHS classification	Concentration
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Non-hazardous galenic excipients			> 97%
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4. First-aid Measures

- General advice : Remove from exposure, lie down. Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.
- Eye contact : Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
- Skin contact : Wash off thoroughly with ample water. Seek medical attention.
- Inhalation : Keep patient calm, remove to fresh air, seek medical attention.
- Ingestion : Rinse mouth immediately and then drink plenty of water, seek medical attention.

Notes to physician

- Treatment : Observe the summary of product characteristics of proprietary medicinal products

5. Fire-fighting Measures

- Suitable extinguishing media : Use extinguishing measures to suit surroundings., Water, Dry chemical, Foam, carbon dioxide
- Hazards during fire-fighting : In case of fire and/or explosion do not breathe fumes. Can be released in case of fire:, nitrogen oxides, Carbon oxides
- Protective equipment for fire-fighting : Wear self-contained breathing apparatus and chemical-protective clothing.
- Further information : Collect separately contaminated extinguishing water, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

- Personal precautions : Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
- Environmental precautions : Do not discharge into drains/surface waters/groundwater.
- Methods for cleaning-up or taking-up : For large amounts: Pump off product. For residues: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust). Pack in tightly closed containers for disposal.
- Additional information : High risk of slipping due to leakage/spillage of product.

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7. Handling and Storage

Handling

Advice on safe handling : Ensure thorough ventilation of stores and work areas. Do not open until use.
Hints for protection against fire and explosion : No hazards which require special first aid measures.
Hygienic measures : General safety and hygiene measures. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

Storage

Requirements for storage rooms and vessels : Protect from heat and direct sunlight. Keep container tightly closed. Jointless smooth floor
Advice on storage compatibility : Keep away from food, drink and animal feedingstuffs. Advice on Segregation
Storage class according to VCI : 10 Combustible liquids not in Storage Class 3

8. Exposure controls/personal protections

Exposure controls

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.
Hand protection : Chemical safety glove category III (EN 374). Glove material: Nitrile rubber, Layer thickness: 0.43 mm (f.e. Camatril® green, Article No.732, Company KCL). Resistance (permeability): Level 6 (480 min).
Eye protection : Safety glasses with side-shields (frame goggles) (EN 166)
Body protection : Laboratory: laboratory coat; factory: disposable Overall.
Additional information : Only use protective equipment in accordance with national/international regulations. Follow the national regulations about wearing personal protective equipment and the warranty given by the manufacturer for the safe function.
General protective measures : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

9. Physical and Chemical Properties

Form : liquid
Colour : No data available.
Odour : No data available.
Odour threshold : No data available.

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pH value : No data available.
 Melting point/ -range : No data available.
 Boiling point/boiling range : No data available.
 Flash point : not applicable
 Ignition temperature : not applicable
 Evaporation rate : No data available.
 Flammability : does not ignite
 Lower explosion limit : not applicable
 Upper explosion limit : not applicable
 Vapour pressure : No data available.
 Relative vapour density : No data available.
 Relative density : No data available.
 Solubility in water : No data available.
 Miscibility with water : miscible in all proportions

 Partitioning coefficient n-octanol/water (log Pow) : No data available.
 Thermal decomposition : No data available.
 Viscosity, dynamic : No data available.
 Explosiveness : No data available.
 Peroxides : No data available.

Further information

Density : No data available.

10. Stability and Reactivity

Hazardous reactions :
 Conditions to avoid : No data available.
 Substances to avoid : No data available.

11. Toxicological Information

Acute oral toxicity : LD50 = 2.336 mg/kg rat
 The values mentioned are those of the active ingredient.
 Acute inhalation toxicity : No data available.
 Acute dermal toxicity : No data available.

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Skin irritation : skin irritation (rabbit)
 The values mentioned are those of the active ingredient.

Eye irritation : Eye irritation (rabbit)
 The values mentioned are those of the active ingredient.

Sensitization : No data available.

Genetic toxicity in vitro : Ames-test
 Salmonella typhimurium
 Result: positive
 The values mentioned are those of the active ingredient.

Ames-test
 Escherichia Coli
 Result: positive
 The values mentioned are those of the active ingredient.

Cytogenetic assay
 CHO (chinese hamster ovary)
 Result: positive
 The values mentioned are those of the active ingredient.

HGPRT assay
 mouse lymphoma cells
 Result: positive
 The values mentioned are those of the active ingredient.

Genetic toxicity in vivo : Micronucleus assay
 mouse
 Result: ambiguous
 The values mentioned are those of the active ingredient.

Carcinogenicity : No data available.

Reproductive toxicity : No data available.

Teratogenicity : No data available.

Aspiration hazard : No data available.

Assessment of carcinogenicity : Suspect of cancerogenic potential., The values mentioned are those of the active ingredient.

Assessment of mutagenicity : Mutagenic effect at bacteria., The values mentioned are those of the active ingredient.

12. Ecological information

Ecotoxicity

Toxicity to fish : No data available.

Toxicity to daphnia : LC50 = 60,0 µg/l (Daphnia magna) Exposition time: 24 h
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Toxicity to algae : No data available.

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Toxicity to bacteria : No data available.
Chronic toxicity to fish : No data available.
Chronic toxicity to aquatic invertebrates : No data available.

Persistence and degradability

Biological degradation : No data available.

Transport between environmental compartments : No data available.

Bioaccumulation : No data available.

PBT and vPvB assessment : No data available.

13. Disposal Considerations

Product : Dispose of in accordance with local regulations. Must not be disposed off together with household garbage. Do not allow product to reach sewage system.
Contaminated packaging : Packs that cannot be cleaned should be disposed of in the same manner as the contents. Uncontaminated packaging can be recycled.

14. Transport Information**Land transport**

UN-No : 3082
Class : 9
Classification Code : M6
Packaging group : III
TRC : (E)
Hazard ID-No. : 90
Label(s) : 9
Symbol : Dangerous for the environment
Designation of goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Furazolidone)

Air transport Passenger Aircraft

UN-No : 3082
Class : 9
Packaging group : III
ICAO-Label(s) : 9

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Symbol : Dangerous for the environment
Correct technical name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Furazolidone)

Air transport Cargo Aircraft

UN-No : 3082
Class : 9
Packaging group : III
ICAO-Label(s) : 9
Symbol : Dangerous for the environment
Correct technical name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Furazolidone)

Sea transport

UN-No : 3082
Class : 9
Packaging group : III
ICAO-Label(s) : 9
Symbol : Dangerous for the environment
EmS : F-AS-F
Correct technical name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Furazolidone)

15. Regulatory information**National legislation/regulations**

Water hazard class : VVWWS
WGK 3 highly water endangering
Annex 3 VwVwS (Germany) dated Mai, 17th 1999

16. Other particulars

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.