

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Print Date: 12.09.2011

Revision Date : 12.09.2011

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Commercial Product Name: CUROX M-102

DE / EN

Version: 1.3

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

### 1.1 Product identifier

#### Product information

Commercial Product Name : **CUROX M-102**

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

Use of the Substance/Mixture : Hardener

### 1.3 Details of the supplier of the safety data sheet

Company : **United Initiators GmbH & Co. KG**  
Dr. Gustav-Adolph-Str. 3  
82049 Pullach  
Germany  
E-mail address : contact@united-in.com

### 1.4 Emergency telephone number

+49 / 89 / 74422 – 0

In case of an emergency in the United States, contact:

**For chemical Emergency ONLY call CHEMTREC : 1-800-424-9300**

**For ALL other inquiries about this product call :**

**United Initiators Inc.**

**555 Garden Street, Elyria Ohio 44035 at 1 (440) 323-3112**

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### **Classification (REGULATION (EC) No 1272/2008)**

Organic peroxides, Type D	H242: Heating may cause a fire.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.

#### **Classification (67/548/EEC, 1999/45/EC)**

Oxidising	R 7: May cause fire.
Corrosive	R34: Causes burns.
Harmful	R22: Harmful if swallowed.

### 2.2 Label elements

#### **Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms :



Signal word :

Danger

Hazard statements :

H242  
H302  
H314

Heating may cause a fire.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.

Precautionary statements :

**Prevention:**  
P220

Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials.

P235  
P262  
P280

Keep cool.  
Do not get in eyes, on skin, or on clothing.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get immediate medical advice/ attention.  
Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

**Disposal:**

P501

Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 1338-23-4 methylethylketoneperoxide

## Labelling according to EC Directives: 1999/45/EC

Hazard symbols :



Oxidising

Corrosive

Harmful

R-phrase(s) :

R 7  
R22  
R34

May cause fire.  
Harmful if swallowed.  
Causes burns.

S-phrase(s) :

S 3/7

Keep container tightly closed in a cool place.

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S14	Keep away from strong acids, bases, heavy metal salts and other reducing substances.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S50	Do not mix with activators and catalyst promoters.

Hazardous components which must be listed on the label:

- 1338-23-4 methylethylketoneperoxide

## 2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. Composition/information on ingredients

### 3.1 Mixtures

Chemical nature : Liquid mixture

#### Hazardous components

Chemical Name	CAS-No.	Classification (67/548/EEC)	Classification (1272/2008/EC)	Concentration [%]
	EC-No.			
	Registration number			
methylethylketoneperoxide	1338-23-4	O; R 7 Xn; R22 C; R34	Org. Perox. C; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314	>= 35 - <= 40
	215-661-2			
	01- 2119514691- 43-0000			

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First aid measures

### 4.1 Description of first aid measures

General advice	: Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
If inhaled	: Remove to fresh air. Call a physician immediately.
In case of skin contact	: Wash off immediately with soap and plenty of water.

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- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. If a person vomits when lying on his back, place him in the recovery position. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

## 4.2 Most important symptoms and effects, both acute and delayed

no data available

## 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during firefighting : Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Wear personal protective equipment.

### 6.2 Environmental precautions

Avoid subsoil penetration. Do not allow material to contaminate ground water system. Do not contaminate water. If the product contaminates rivers and lakes or drains inform respective authorities. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

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Remove mechanically and with care (e.g. with clean polyethylene plastic shovel). Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

## 6.4 Reference to other sections

see chapter: 7, 8, 11, 12 and 13

## 6.5 Other information

Never add other substances or waste material to product residue. Move product residue to a safe place and dispose of properly.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Dust explosion class : no data available

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed. No smoking.

Further information on storage conditions : Avoid impurities (e.g. rust, dust, ash), risk of decomposition.

Advice on common storage : Store apart from other dangerous and incompatible substances.

Storage temperature : < 30 °C

Other data : Storing temperature for reasons of quality  
liquid up to -25 °C

### 7.3 Specific end uses

no data available

## 8. Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

Other information on limit values: see chapter 16

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## 8.2 Exposure controls

### Engineering measures

Provide adequate ventilation.

### Personal protective equipment

Respiratory protection : Short duration filter unit: Filter A

### Hand protection

Material : butyl-rubber  
Glove thickness : 0,5 mm  
Break through time : >= 8 h

Remarks : Skin should be washed after contact.

Eye protection : Tightly fitting safety goggles  
Face protection

Skin and body protection : Protective suit  
Remove and wash contaminated clothing before re-use.

Hygiene measures : Wash hands before breaks and immediately after handling the product.  
Keep away from food, drink and animal feedingstuffs.

### Environmental exposure controls

General advice : Avoid subsoil penetration.  
Do not allow material to contaminate ground water system.  
Do not contaminate water.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
Do not let product enter drains.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid  
Colour : colourless  
Odour : characteristic  
Odour Threshold : Not relevant  
pH : not applicable

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Melting point/freezing point	: < -25 °C
Initial boiling point and boiling range	: not applicable, Decomposition
Flash point	: not applicable
Evaporation rate	: Not relevant
Flammability (solid, gas)	: not applicable
Lower explosion limit	: not applicable
Upper explosion limit	: not applicable
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1,01 g/cm <sup>3</sup> at 20 °C
Water solubility	: no data available
Partition coefficient: n-octanol/water	: no data available
Solubility in other solvents	: Mixable Medium: Phthalates
Autoignition temperature	: not applicable, Decomposes on heating.
Decomposition temperature	: ca. 60 °C, SADT (UN test H.4), SADT possible at temperatures above approximately 60 °C.
Viscosity, dynamic	: 13 mPa.s at 20 °C
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: Organic peroxide

## 9.2 Other information

Ignition temperature	: not applicable
Refraction index	: 1,438 at 20 °C
Miscibility in water	: immiscible

## 10. Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Contact with incompatible substances can cause disintegration at or below SADT.

### 10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.  
Stability: Stable under recommended storage conditions.

### 10.4 Conditions to avoid

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Keep away from heat and sources of ignition.

## 10.5 Incompatible materials

Materials to avoid : Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents, Avoid impurities (e.g. rust, dust, ash), risk of decomposition.

## 10.6 Hazardous decomposition products

Hazardous decomposition products : Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

Thermal decomposition : ca. 60 °C  
Method: SADT (UN test H.4)  
Note: SADT possible at temperatures above approximately 60 °C.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute oral toxicity : LD50 rat: 1.017 mg/kg  
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

Acute inhalation toxicity : LC50 rat: 17 mg/l  
Exposure time: 4 h  
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)  
Note: Aerosol  
Nominal concentration

Acute dermal toxicity : LD50 rat: 4.000 mg/kg  
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

#### Skin corrosion/irritation

Skin irritation : Causes burns.

#### Serious eye damage/eye irritation

Eye irritation : Causes burns.

#### Respiratory or skin sensitization

Sensitisation : Result: Product is not sensitizing.  
Method: Maximisation Test  
Test substance: methylethylketoneperoxide (60% in dimethylphthalate/diacetone alcohol)

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## Germ cell mutagenicity

Genotoxicity in vitro : Result: Not mutagenic in Ames Test.

## Carcinogenicity

no data available

## Reproductive toxicity

no data available

## Teratogenicity

no data available

## STOT - single exposure

no data available

## STOT - repeated exposure

no data available

## Aspiration hazard

Aspiration toxicity

no data available

## 12. Ecological information

### 12.1 Toxicity

Toxicity to fish : LC50 (Poecilia reticulata (guppy)): 44,2 mg/l  
Exposure time: 96 h  
Test substance: methylethylketoneperoxide (33% in dimethylphthalate)

Toxicity to daphnia and other aquatic invertebrates. : EC50 (Daphnia): 39 mg/l  
Exposure time: 48 h  
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata): 5,6 mg/l  
Exposure time: 72 h  
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

Toxicity to bacteria : EC50 (Bacteria): 48 mg/l  
Exposure time: 30 min  
Test substance: methylethylketoneperoxide (33% in dimethylphthalate)

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late)

## 12.2 Persistence and degradability

Biodegradability : Result: Readily biodegradable.  
Method: Closed Bottle Test  
Test substance: methylethylketoneperoxide (MEKP)

## 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 12.6 Other adverse effects

no data available

## 13. Disposal considerations

### 13.1 Waste treatment methods

Advice on disposal and packaging : Disposal:  
Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations.  
Waste codes should be assigned by the user based on the application for which the product was used.

## 14. Transport information

### ADR

UN number : 3105  
Description of the goods : ORGANIC PEROXIDE TYPE D, LIQUID  
(methylethylketoneperoxide)  
Class : 5.2  
Packing group : --  
Classification Code : P1  
Labels : 5.2  
Limited quantity : LQ16  
Tunnel restriction code : (D)  
Environmentally hazardous : no

### RID

UN number : 3105

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Description of the goods : ORGANIC PEROXIDE TYPE D, LIQUID  
(methylethylketoneperoxide)  
Class : 5.2  
Packing group : --  
Classification Code : P1  
Hazard identification No : 539  
Labels : 5.2  
Limited quantity : LQ16  
Environmentally hazardous : no

#### IATA

UN number : 3105  
Description of the goods : Organic peroxide type D, liquid  
(methylethylketoneperoxide)  
Class : 5.2  
Packing group : --  
Labels : 5.2 (HEAT)  
Packing instruction (cargo aircraft) : 570  
Environmentally hazardous : no  
Packing instruction (passenger aircraft) : 570

#### IMDG

UN number : 3105  
Description of the goods : ORGANIC PEROXIDE TYPE D, LIQUID  
(methylethylketoneperoxide)  
Class : 5.2  
Packing group : --  
Labels : 5.2  
EmSNumber 1 : F-J  
EmS Number 2 : S-R  
Marine pollutant : no

**Special precautions for user**  
see chapter: 6, 7 and 8

## 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National legislation

Water contaminating class : WGK 2 (water endangering)  
(Germany) VwVwS (German water pollution authority), appendix 4

Other regulations : BGV B4 organische Peroxide. (German regulatory requirements)  
BG-Merkblatt M001 beachten (German regulatory requirements)  
Produkt unterliegt nicht dem Sprengstoffgesetz (SprengG). (German regulatory requirements) Take note of Dir 92/85/EEC on the safety

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and health at work of pregnant workers. Take note of Dir 94/33/EC on the protection of young people at work. Störfallverordnung Anhang I (German regulatory requirements)

Gefahrengruppe nach § 3 BGV B4: (German regulatory requirements) Ib (German regulatory requirements)

## 15.2 Chemical Safety Assessment

no data available

## 16. Other information

### Full text of R-phrases referred to under sections 2 and 3

R 7	May cause fire.
R22	Harmful if swallowed.
R34	Causes burns.

### Full text of H-Statements referred to under sections 2 and 3.

H242	Heating may cause a fire.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

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.