

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Print Date: 26.07.2013

Revision Date : 26.07.2013

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Commercial Product Name: CUROX M-403

DE / EN

Version: 1.0

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

### 1.1 Product identifier

#### Product information

Commercial Product Name : **CUROX M-403**

### 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 AB**  
Engelbrektsgatan 43B  
SE-114 32 Stockholm  
Sweden

E-mail address : **info@united-in.com**

Telephone : **+46 8 54512160**

### 1.4 Emergency telephone number

+46 8 337043 (24 h)

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  
Acute toxicity, Category 4  
Skin corrosion, Category 1B

H242: Heating may cause a fire.  
H302: Harmful if swallowed.  
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.

P233  
P235  
P280

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

P262

**Response:**

P315

Get immediate medical advice/ attention.

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.

**Disposal:**

P501

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

Hazardous components which must be listed on the label:

- methylethylketoneperoxide

## 2.3 Other hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No.	Classification (67/548/EEC)	Classification (1272/2008/EC)	Concentration [%]
	EC-No.			
	Registration number			
methylethylketoneperoxide	1338-23-4 215-661-2	O; R 7 Xn; R22	Org. Perox. D; H242 Acute Tox. 4; H302	25 - < 35

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	01-2119514691-43-0001	C; R34	Skin Corr. 1B; H314	
hydrogen peroxide solution	7722-84-1	O; R 8	Ox. Liq. 1; H271 Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Corr. 1A; H314	2 - < 3
	231-765-0	R 5 C; R35 Xn; R20/22		
2-methylpentane-2,4-diol	107-41-5	Xi; R36/38	Eye Irrit. 2; H319 Skin Irrit. 2; H315	1 - < 1,5
	203-489-0			

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.
- 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

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## 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : 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

Remove mechanically and with care (e.g. with clean polyethylene plastic shovel). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

### 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. Offer surplus and non-recyclable solutions to a licensed disposal company.

## 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

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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

## 7.3 Specific end use(s)

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

### 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  
Breakthrough time: : >= 8 h

Remarks : Skin should be washed after contact.

Eye protection : Tightly fitting safety goggles  
Wear face protection.

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

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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, clear
Odour	: slight mint-like
Odour Threshold	: Not relevant
pH	: no data available
Flash point	: > 80 °C
Evaporation rate	: Not relevant
Flammability	: liquid: not applicable
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1,11 - 1,13 g/cm <sup>3</sup> at 20 °C
Water solubility	: slightly soluble
Partition coefficient: n-octanol/water	: no data available
Solubility in other solvents	: soluble Medium: organic solvents
Auto-ignition temperature	: not applicable, Decomposes on heating.
Decomposition temperature	: >= 60 °C, SADT (UN test H.4), SADT possible at temperatures above approximately 60 °C.
Viscosity, dynamic	: 19 - 23 mPa.s
Viscosity, kinematic	: no data available
Explosive properties	: no data available

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Oxidizing properties : Organic peroxide

## 9.2 Other information

## 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

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

## 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

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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 sensitisation

Sensitisation : Method: Maximisation Test  
Test substance: methylethylketoneperoxide (60% in dimethylphthalate/diacetone alcohol)  
Did not cause sensitisation on laboratory animals.

## 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

hydrogen peroxide solution : May cause respiratory irritation.

## 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

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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)

## 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 substance is not 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.

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## 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  
 Description of the goods : ORGANIC PEROXIDE TYPE D, LIQUID  
 (methylethylketoneperoxide)  
 Class : 5.2  
 Packing group : --  
 Classification Code : P1  
 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 air-  
 craft) : 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

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## 15. Regulatory information

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

#### National legislation

Water contaminating class (Germany) : WGK 2 (water endangering)  
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 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 5	Heating may cause an explosion.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R36/38	Irritating to eyes and skin.

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

H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

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