

SAFETY DATA SHEET

according to EC directive 2001/58/EC

Print Date: 09.10.2006

Revision Date : 07.10.2006

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Trade name: Curox M-300

Version : 2

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

Product information

Trade name : **Curox M-300**
Company : Degussa Initiators GmbH & Co. KG
Dr. Gustav-Adolph-Str. 3

D-82049 Pullach
Emergency telephone number : +49 / 89 / 74422 - 0

In case of an emergency in the United States, contact:
Degussa Initiators Inc.
555 Garden Street, Elrya Ohio 44035 at 1 (440) 323-3112

Use

Type of use : Industrial use chemicals

2. COMPOSITION/INFORMATION ON INGREDIENTS

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Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-pharse(s)	Concentration [%]
methylethylketoneperoxide	1338-23-4	215-661-2	O, C, Xn	R 7 R22 R34	25 - < 35
4-hydroxy-4methylpentan-2-one (diacetone alcohol)	123-42-2	204-626-7	Xi	R36	12,5 - < 15
methylethylketone	78-93-3	201-159-0	F, Xi	R11 R36 R66 R67	3 - < 5
hydrogen peroxide	7722-84-1	231-765-0	O, C	R 5 R 8 R35 R20/22	3 - < 5

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment



Symbol(s) : C Corrosive
O Oxidizing

R-pharse(s) : R 7 May cause fire.
R22 Harmful if swallowed.
R34 Causes burns.

4. 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).

Inhalation : Remove to fresh air.
Call a physician immediately.

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- Skin contact : Wash off immediately with soap and plenty of water.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : 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.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Extinguishing media which must not be used for safety reasons : High volume water jet
- 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.
- Special protective equipment for fire-fighters : 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

- Personal precautions : Wear respiratory protection.
Wear personal protective equipment.
- 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.
- Methods for cleaning up : 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.

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Additional advice : 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

Handling

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

Storage

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

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

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Note	Update	Basis
4-hydroxy-4methylpentan-2-one (diacetone alcohol)	123-42-2	96 mg/m ³ 20 ppm		01 2006	TRGS 900
methylethylketone	78-93-3	600 mg/m ³ 200 ppm		01 2006	TRGS 900

Engineering measures

General advice : Provide adequate ventilation.

Personal protective equipment

Respiratory protection : Short duration filter unit: Filter A

Hand protection : Skin should be washed after contact.

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid

Colour : colourless

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Safety data

<u>pH</u>	: not applicable
<u>Miscibility in water</u>	: immiscible
<u>Boiling point/range</u>	: not applicable, Decomposition
<u>Flash point</u>	: 59 °C Method: ISO 3679, Seta-Flash
<u>Lower explosion limit</u>	: not applicable
<u>Upper explosion limit</u>	: not applicable
<u>Vapour pressure</u>	: no data available
<u>Density</u>	: 1,06 g/cm ³ at 20 °C
<u>Partition coefficient (n-octanol/water)</u>	: no data available
<u>Solubility in other solvents</u>	: Medium: Phthalates Mixable
<u>Viscosity, dynamic</u>	: 23 mPa.s at 20 °C
<u>Refraction index</u>	: 1,458 at 20 °C

10. STABILITY AND REACTIVITY

<u>Conditions to avoid</u>	: Keep away from heat and sources of ignition.
<u>Materials to avoid</u>	: Accelerators, strong acids and bases, heavy metal salts, reduction mediums Avoid impurities (e.g. rust, dust, ash), risk of decomposition.
<u>Hazardous decomposition products</u>	: Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition
<u>Thermal decomposition</u>	: ca.60 °C Method: SADT (UN test H.4) SADT possible at temperatures above approximately 60 °C.

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Hazardous reactions

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

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

: LD50 rat
Dose: 1,017 mg/kg
Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

Acute inhalation toxicity

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

Acute dermal toxicity

: LD50 rat
Dose: 1,8 - 3,6 mg/kg
Test substance: methylethylketoneperoxide (60% in dimethylphthalate)

Sensitization

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

AMES-Test:

: rat
Result: Not mutagenic in AMES Test.

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12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

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

Ecotoxicity effects

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

Toxicity to bacteria : EC50
Dose: 48 mg/l
Test substance: methylethylketoneperoxide (33% in dimethylphthalate)

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

13. DISPOSAL CONSIDERATIONS

Advice on disposal and packaging : Disposal:
Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations.

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14. TRANSPORT INFORMATION

Land transport

▪ *ADR / GGVS:*

Class: 5.2
Packaging group: II
Classification Code: P1
Risk No.: 539
UN-No.: 3105
Description of the goods: ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)

▪ *RID / GGVE:*

Class: 5.2
Packaging group: II
Classification Code: P1
Risk No.: 539
UN-No.: 3105
Description of the goods: ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)

Sea transport

▪ *IMDG:*

Class: 5.2
Classification Code:
Packaging group:
UN-No.: 3105
EmS: F-J S-R
Marine pollutant: no
Proper technical name: ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)

Air transport

▪ *ICAO/IATA:*

Class: 5.2
Classification Code:
Packaging group:
UN-No.: 3105
Proper technical name: Organic peroxide type D, liquid (methylethylketoneperoxide)

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15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- 1338-23-4 methylethylketoneperoxide

Symbol(s) : C Corrosive
O Oxidizing



R-phrase(s) : R 7 May cause fire.
R22 Harmful if swallowed.
R34 Causes burns.

S-phrase(s) : S 3/7 Keep container tightly closed in a cool place.
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.

National legislation

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)

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16. OTHER INFORMATION

R-phrases corresponding to the number shown in section 2 :

R 5	Heating may cause an explosion.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R11	Highly flammable.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Further information

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.