

Org. Peroxide; Flammable; Irritant  
to Shock Sensitive



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Print Date: 14.12.2010

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Commercial Product Name: DHBP

DE / EN

Version: 2.11

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

#### Product information

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

#### Use

Type of use : Industrial use chemicals

### 2. HAZARDS IDENTIFICATION

Classification REGULATION (EC) No 1272/2008



Organic peroxides, Type D  
Skin irritation, Category 2

H242: Heating may cause a fire.  
H315: Causes skin irritation.

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



E Explosive  
Xi Irritant

R 2 Risk of explosion by shock, friction, fire or other sources of ignition.  
R 7 May cause fire.  
R38 Irritating to skin.



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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : technically pure, liquid

### Hazardous components

Chemical Name	CAS-No.	EC-No. / Registration number	Classification	Concentration [%]
2,5-dimethyl-2,5-di(tert-butylperoxy)hexane	78-63-7	201-128-1	E; R 2 R 7 Xi; R36/38	<= 100

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

## 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.   |
| 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.    |



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## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards : 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.
- 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.

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Advice on protection against fire and explosion : Avoid shock and friction.

## 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 : 10 - 30 °C

Other data : liquid up to 10 °C

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Other information on limit values: see chapter 16

### 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

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- |                                 |  |
|---------------------------------|--|
| Remarks                         | : Skin should be washed after contact.   |
| <u>Eye protection</u>           | : Tightly fitting safety goggles<br>Face protection  |
| <u>Skin and body protection</u> | : Protective suit<br>Remove and wash contaminated clothing before re-use.  |
| <u>Hygiene measures</u>         | : Wash hands before breaks and immediately after handling the product.<br>Keep away from food, drink and animal feedingstuffs. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

- |        |              |
|--------|--------------|
| Form   | : liquid     |
| Colour | : colourless |

### Safety data

- |  |   |
|--|---|
| Flash point                            | : 74 °C<br>Method: ISO 3679, Seta-Flash                         |
| Ignition temperature                   | : not applicable  |
| Lower explosion limit                  | : not applicable  |
| Upper explosion limit                  | : not applicable  |
| pH                                     | : not applicable  |
| Boiling point/boiling range            | : not applicable, Decomposition                                 |
| Vapour pressure                        | : 8 hPa at 50 °C<br><br>27 hPa at 80 °C<br><br>95 hPa at 110 °C |
| Density                                | : 0,88 g/cm <sup>3</sup> at 20 °C                               |
| Partition coefficient: n-octanol/water | : no data available   |
| Solubility in other solvents           | : Mixable<br>Medium: Alcohol                                    |

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Mixable  
Medium: Esters

Viscosity, dynamic : 8 mPa.s at 20 °C

Refraction index : 1,422  
at 20 °C

Miscibility in water : immiscible

## 10. STABILITY AND REACTIVITY

Conditions to avoid : Keep away from heat and sources of ignition.

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.

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

Thermal decomposition : ca. 90 °C  
Method: SADT (UN test H.4)  
Note: SADT possible at temperatures above approximately 90 °C.

Hazardous reactions : Vapours may form explosive mixture with air.

Stability : Stable under recommended storage conditions.

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat: > 2.000 mg/kg  
Test substance: 2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane,  
> 90%

Acute dermal toxicity : LD50 rat: 4.100 mg/kg  
Test substance: 2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane,  
90%

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



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Skin irritation : Irritating to skin.

Eye irritation : No eye irritation

Sensitisation : Result: Product is not sensitizing.  
Method: Buehler Test  
Test substance: 2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane, 92,6%

## 12. ECOLOGICAL INFORMATION

## 13. DISPOSAL CONSIDERATIONS

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  
(2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane)  
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

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(2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane)

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 (2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane)
Class	: 5.2
Packing group	: --
Labels	: 5.2 (HEAT)
Packing instruction (cargo aircraft)	: 502
Environmentally hazardous	: no
Packing instruction (passenger aircraft)	: 500

## IMDG

UN number	: 3105
Description of the goods	: ORGANIC PEROXIDE TYPE D, LIQUID (2,5-dimethyl-2,5-di(tert-butylperoxy)-hexane)
Class	: 5.2
Packing group	: --
Labels	: 5.2
EmS Number 1	: F-J
EmS Number 2	: S-R
Marine pollutant	: no

## 15. REGULATORY INFORMATION

Labelling REGULATION (EC) No 1272/2008

Symbol(s)



Signal word

: Danger

Hazard statements

: H242  
H315

Heating may cause a fire.  
Causes skin irritation.

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## Precautionary statements

### Prevention:

P220

Keep/Store away from clothing/ combustible materials.

P233

Keep container tightly closed.

P235

Keep cool.

P262

Do not get in eyes, on skin, or on clothing.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response:

P333 + P313

If skin irritation or rash occurs: Get medical advice/ attention.

### Disposal:

P501

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

## Labelling according to EC Directives

### 1999/45/EC

Symbol(s)

: E  
Xi

Explosive  
Irritant

R-phrases(s)

: R 2  
  
R 7  
R38

Risk of explosion by shock, friction, fire or other sources of ignition.  
May cause fire.  
Irritating to skin.

S-phrases(s)

: S 3/7  
  
S14  
  
S36/37/39

Keep container tightly closed in a cool place.  
Keep away from strong acids, bases, heavy metal salts and other reducing substances.  
Wear suitable protective clothing, gloves and eye/face protection.

## National legislation

Water contaminating class  
(Germany)

: WGK 1 (slightly water endangering)  
VwVwS (German water pollution authority), appendix 2

Other regulations

: BGV B4 organische Peroxide. (German regulatory requirements) BG-Merkblatt M001 beachten (German

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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) Produkt unterliegt dem Sprengstoffgesetz (SprengG; Stoffgruppe C). (German regulatory requirements)

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

## 16. OTHER INFORMATION

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

R 2	Risk of explosion by shock, friction, fire or other sources of ignition.
R 7	May cause fire.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.

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.



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