



# Safety data sheet

## 1. Substance / preparation and company identification

Trade name:

Härterpulver 50

Application of the substance / the preparation:

Reaction initiator

BEIL

Kunststoff-Produktions- und Handelsgesellschaft mbH

Lehmkuhlenweg 25

D- 31224 Peine

Telefon: +49 (0)5171/70 99-0

Telefax: +49 (0)5171/7099-29

E-Mail: [service@beil-peine.de](mailto:service@beil-peine.de)

Information in case of emergency:

Giftzentrale Göttingen

Tel.: +49 (0)551/19240

Telefax: +49 (0)551/3831881

## 2. Hazard identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Org. Perox. CD H242 Heating may cause a fire.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R62: Possible risk of impaired fertility.

Xi; Irritant

R36: Irritating to eyes.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

O; Oxidising

R7: May cause fire.

N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Information concerning

#### particular hazards for human

**and environment:** The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:** The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 2.2 Label elements



### Labelling according to

**Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.

### Hazard pictograms



GHS02



GHS07



GHS08



GHS09

### Signal word

Danger

### Hazard-determining

### components of labelling:

### Hazard statements

dicyclohexyl phthalate, dibenzoyl peroxide

H242

Heating may cause a fire.

H319

Causes serious eye irritation.

H317

May cause an allergic skin reaction.

H361

Suspected of damaging fertility or the unborn child.

H400

Very toxic to aquatic life.

H412

Harmful to aquatic life with long lasting effects.

### Precautionary statements

P210

Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

P220

Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy metal compounds and amines).

P234

Keep only in original container.

P264

Wash thoroughly after handling.

P273

Avoid release to the environment.

P280

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

P305+P351+P338

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

P410

Protect from sunlight.

P411+P235

Store at temperatures not exceeding +30°C. Keep cool.

P420

Do not mix with peroxide-accelerators or reducing agents.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

## 3. Composition / information on ingredients

### 3.2 Chemical characterization: Mixtures

#### Dangerous components:

CAS: 94-36-0

dibenzoyl peroxide

40-50%

EINECS: 202-327-6

Xi R36; Xi R43; E R3; O R7; N R50

Index number: 617-008-00-0

Org. Perox. B, H241; Aquatic Acute 1, H400;

Eye Irrit. 2, H319; Skin Sens. 1, H317

Reg-No.:01-2119511472-50



CAS: 84-61-7

EINECS: 201-545-9

dicyclohexyl phthllate

Xn R62; Xi R43

R53

Repr. 2, H361; Skin Sens. 1, H317; Aquatic Chronic 3, H412

40-50%

**Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 4. First-aid measures

##### 4.1 Description of first aid measures

###### General information:

Take care of personal protection for the first aider.

###### After inhalation:

Supply fresh air and to be sure call for a doctor.

###### After skin contact:

In case of unconsciousness place patient stably in side position for transportation. Take affected persons into fresh air and keep quiet.

Immediately wash with water and soap and rinse thoroughly.

###### After eye contact:

Immediately remove contaminated clothing.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

###### After swallowing:

If symptoms persist consult doctor.

##### 4.2 Most important symptoms

###### and effects, both acute and delayed

No further relevant information available.

##### 4.3 Indication of any immediate

###### medical attention and special

###### treatment needed

No further relevant information available.

#### 5. Fire-fighting measures

##### 5.1 Extinguishing media

###### Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Hydrocarbons, carbondioxide and -monoxid.

##### 5.3 Advice for firefighters

###### Protective equipment:

Do not inhale explosion gases or combustion gases.

###### Additional information

Cool endangered receptacles with water spray.

Self-protection first!

#### 6. Accidental release measures

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

Keep away from ignition sources.

In case of further temperature should be cooled with waterspray from a safe distance.

Wear breathing apparatus with filter A during decomposition of materials.

Wear protective equipment. Keep unprotected persons away.

##### 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

##### 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Large quantities should be diluted with suitable desensitization agent to a concentration below 10 % before disposal.

Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government regulations.



#### 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.  
In case of large spillage the environmental authority should be informed.

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### 7. Handling and storage

#### 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.  
Open and handle receptacle with care.  
Prevent formation of aerosols.  
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.  
Do not refill residue into storage receptacles.  
Restrict the quantity stored at the work place.  
Before break and at the end of work hands should be thoroughly washed.  
Only use tools made of suitable materials (e. g. polyethylene or stainless steel).  
Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavymetal compounds and amines).  
Oxidizing because of releasing oxygene.  
While using do not eat, drink or smoke.  
Do not generate flames or sparks.  
Keep product and emptied container away from heat and sources of ignition.  
Avoid shock and friction.  
Take precautionary measures against static discharges.  
Do not smoke.

#### Information about fire - and explosion protection:

Protect from heat.  
Protect against electrostatic charges.  
Prevent impact and friction.  
Use explosion-proof apparatus / fittings and spark-proof tools.  
Fumes can combine with air to form an explosive mixture.  
Wear shoes with conductive soles.  
Formation of flammable or explosive gas/air-mixtures is possible.  
Avoid open flames, sparks, direct sunlight and other sources of ignition.  
Keep ignition sources away - Do not smoke.

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

##### Storage:

#### Requirements to be met by storerooms and receptacles:

Pay attention to the special requirements of your local authorities for storing dangerous goods.

Store only in the original receptacle.  
Prevent any seepage into the ground.  
Use only receptacles specifically permitted for this substance/product.

#### Information about storage in one common storage facility:

Do not store or park organic peroxide together with heavy metal compounds and amines.  
Store away from foodstuffs, drinks and feeding stuffs.

#### Further information about

**storage conditions:**

Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Protect from contamination.

**Recommended storage  
temperature (To maintain  
quality):**

max. +30 °C

**7.3 Specific end use(s)**

No further relevant information available.

**8. Exposure controls and personal protection****Additional information about****design of technical facilities:**

No further data; see item 7.

**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****94-36-0 dibenzoyl peroxide**WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup>**84-61-7 dicyclohexyl phthalate**WEL (Great Britain) Long-term value: 5 mg/m<sup>3</sup>**DNELs****94-36-0 dibenzoyl peroxide**

Oral DNEL Longterm System 1.65 mg/kg bw/day (General population)

Dermal DNEL Longterm System 6.6 mg/kg bw/day (Worker)

3.3 mg/kg bw/day (General population)

Inhalative DNEL Longterm System 11.75 mg/m<sup>3</sup> (Worker)2.9 mg/m<sup>3</sup> (General population)**84-61-7 dicyclohexyl phthalate**

Dermal DNEL Longterm System 0.5 mg/kg bw/day (Worker)

Inhalative DNEL Longterm System 35.2 mg/m<sup>3</sup> (Worker)**PNECs****94-36-0 dibenzoyl peroxide**

PNEC Freshwater 0.000602 mg/l (-)

PNEC Freshwater sed 0.338 mg/kg sed dw (-)

PNEC Marinewater 0.000602 mg/l (-)

PNEC Marinewater sed 0.0338 mg/kg sed dw (-)

PNEC STP 0.35 mg/l (-)

PNEC oral 6.67 mg/kg food (-)

**84-61-7 dicyclohexyl phthalate**

PNEC Freshwater 0.00362 mg/l (AF 50)

PNEC Freshwater sed 1.06 mg/kg sed dw (-)

PNEC Marinewater 0.000362 mg/l (AF 500)

PNEC Marinewater sed 0.106 mg/kg sed dw (-)

PNEC STP 10 mg/l (AF 10)

PNEC Soil 0.21 mg/kg soil dw (-)

**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Personal protective equipment:**

**General protective and hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid close or long term contact with the skin.  
Avoid contact with the eyes and skin.  
Do not eat, drink, smoke or sniff while working.



<b>Respiratory protection:</b>	Use skin protection cream for skin protection. Be sure to clean skin thoroughly after work and before breaks. Not necessary if room is well-ventilated. Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated. Filter A2
<b>Protection of hands:</b>	Only use chemical-protective gloves with CE-labelling of category III. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
<b>Material of gloves</b>	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Butyl rubber, BR, Fluorocarbon rubber (Viton), Nitrile rubber, NBR, Neoprene
<b>Penetration time of glove material</b>	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
<b>Eye protection:</b>	Tightly sealed goggles
<b>Body protection:</b>	Protective work clothing

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Solid Powder
<b>Colour:</b>	Whitish
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.

#### Change in condition

<b>Melting point/Melting range:</b>	Not applicable.
<b>Boiling point/Boiling range:</b>	Not applicable.
<b>Flash point:</b>	Not determined.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Decomposition temperature:</b>	+60 °C (SADT)
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.

#### Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density at 20°C:</b>	1.23 g/cm <sup>3</sup>
<b>Bulk density at 20 °C:</b>	650 kg/m <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

#### Solubility in / Miscibility with water:

<b>Partition coefficient (n-octanol/water):</b>	not determined
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#### Viscosity:

<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not determined.

### 9.2 Other information

No further relevant information available.



**Active oxygen** 3,2 - 3,4 %

## 10. Stability and reactivity

### 10.1 Reactivity

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous selfaccelerating decomposition reaction and, under certain circumstances, explosion or fire can be cause decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT.

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

### 10.3 Possibility of hazardous reactions

Self-accelerating decomposition at SADT.

### 10.4 Conditions to avoid

No further relevant information available.

### 10.5 Incompatible materials:

Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e.g. heavy-metal compounds and amines).

### 10.6 Hazardous decomposition products:

Hydrocarbons, carbon dioxide and -monoxid.

No hazardous decomposition products if used and stored according to specifications.

#### Additional information:

Emergency procedures will vary depending on conditions. The customer should have an emergency response plane in place.

## 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values relevant for classification:

#### 94-36-0 dibenzoyl peroxide

Oral LD50 >5000 mg/kg (rattus)

#### 84-61-7 dicyclohexyl phthalate

Oral LD50 >2000 mg/kg (rattus)

#### Primary irritant effect:

##### on the skin:

No irritant effect.

##### on the eye:

Irritating effect.

#### Sensitization:

Sensitization possible through skin contact.

#### Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU

Classification Guidelines for Preparations as issued in the latest version:

Irritant

#### CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Repr. 2

## 12. Ecological information

### 12.1 Toxicity

**Aquatic toxicity:****94-36-0 dibenzoyl peroxide**

EC50 / 48h 0.110 mg/l (daphnia magna)

EC50 / 72h 0.0711 mg/l (pseudokirchneriella subcapitata)

LC50 / 96h 0.0602 mg/l (oncorhynchus mykiss)

**12.2 Persistence and****degradability**

No further relevant information available.

**12.3 Bioaccumulative potential**

No further relevant information available.

**12.4 Mobility in soil**

No further relevant information available.

**Ecotoxicological effects:****Remark:**

Very toxic for fish

**Additional ecological information:****General notes:**

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**12.5 Results of PBT and vPvB assessment****PBT:**

Not applicable.

**vPvB:**

Not applicable.

**12.6 Other adverse effects**

No further relevant information available.

**13. Disposal considerations****13.1 Waste treatment methods****Recommendation**

After diluting with a suitable inert solid material to 10 %, the product must be supplied to a special treatment (e. g. thermal utilization) under observance of all official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Waste disposal key:**

Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-number.

**Uncleaned packaging:****Recommendation:**

This material and its container must be disposed of as hazardous waste.

**14. Transport information****14.1 UN-Number**

ADR, IMDG, IATA

UN3106

**14.2 UN proper shipping name**

ADR

3106 ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE), ENVIRONMENTALLY HAZARDOUS

IMDG

ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE), MARINE POLLUTANT

IATA

ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXIDE)

**14.3 Transport hazard class(es)**

ADR

Class

5.2 (P1) Organic peroxides.

Label

5.2

IMDG

Class

5.2 Organic peroxides.

Label

5.2





<b>IATA</b>	
<b>Class</b>	5.2 Organic peroxides.
<b>Label</b>	5.2
<b>14.4 Packing group</b>	
<b>ADR, IMDG, IATA</b>	Void
<b>14.5 Environmental hazards:</b>	Product contains environmentally hazardous substances: DIBENZOYL PEROXIDE
<b>Marine pollutant:</b>	Yes
<b>Special marking (ADR):</b>	Symbol (fish and tree)
<b>14.6 Special precautions for user</b>	Symbol (fish and tree)
<b>Danger code (Kemler):</b>	Warning: Organic peroxides.
<b>EMS Number:</b>	-
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	F-J,S-R
<b>Transport/Additional information:</b>	Not applicable.
<b>ADR</b>	
<b>Limited quantities (LQ)</b>	500 g
<b>Transport category</b>	2
<b>Tunnel restriction code</b>	D
<b>RID / GGVSEB:</b>	like ADR

## 15. Regulatory information

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

#### National regulations:

#### Other regulations, limitations and prohibitive regulations

**Please note:** Take care of the respective local regulations.

### 15.2 Chemical safety

**assessment:** A Chemical Safety Assessment has not been carried out.

## 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Relevant phrases

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
R3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R36	Irritating to eyes.
R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R7	May cause fire.

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods



IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Org. Perox. B: Organic Peroxides, Type B  
Org. Perox. CD: Organic Peroxides, Types C, D  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Repr. 2: Reproductive toxicity, Hazard Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment – Acute Hazard, Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

The information contained here in is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.