

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/13/2018

Reviewed on 09/13/2018

1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 8100 HARDENER 1
- **Article number:** 14654(H1)
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Electron Microscopy Sciences
 1560 Industry Road
 USA-Hatfield, PA 19440
 Tel: 215-412-8400 Fax: 215-412-8450
 email: sgkcck@aol.com
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
 ChemTrec 1-800-424-9300 Contract CCN7661
 1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

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



GHS08 Health hazard

Repr. 1A H360 May damage fertility or the unborn child.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

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

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
 dicyclohexyl phthalate
 dibenzoyl peroxide
- **Hazard statements**
 Heating may cause a fire.

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Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep/Store away from clothing/combustible materials.

Keep only in original container.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

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

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Protect from sunlight.

Store at temperatures not exceeding 70°F. Keep cool.

Store away from other materials.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**



Health = *2

Fire = 3

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

94-36-0	dibenzoyl peroxide	>25- ≤50%
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84-61-7 dicyclohexyl phthalate

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>25-≤50%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

94-36-0 dibenzoyl peroxide

15 mg/m³

- **PAC-2:**

94-36-0 dibenzoyl peroxide

1,200 mg/m³

- **PAC-3:**

94-36-0 dibenzoyl peroxide

7,000 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

94-36-0 dibenzoyl peroxide

PEL	Long-term value: 5 mg/m ³
REL	Long-term value: 5 mg/m ³
TLV	Long-term value: 5 mg/m ³

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Powder
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Color:	White
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· **Odor:** Weak, characteristic· **Odor threshold:** Not determined.· **pH-value:** Not applicable.· **Change in condition**

Melting point/Melting range:	Undetermined.
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Boiling point/Boiling range:	Undetermined.
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· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** May cause fire.· **Decomposition temperature:** Not determined.· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Explosion limits:**

Lower:	Not determined.
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Upper:	Not determined.
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· **Vapor pressure at 20 °C (68 °F):** 1 hPa (0.8 mm Hg)· **Density at 20 °C (68 °F):** 1.23 g/cm³ (10.26435 lbs/gal)· **Relative density** Not determined.· **Vapor density** Not applicable.· **Evaporation rate** Not applicable.· **Solubility in / Miscibility with**

Water:	Insoluble.
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· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

Dynamic:	Not applicable.
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Kinematic:	Not applicable.
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· **Solvent content:**

VOC content:	0.00 %
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	0.0 g/l / 0.00 lb/gal
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Solids content:	100.0 %
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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **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 internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

94-36-0	dibenzoyl peroxide	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN3106
- **UN proper shipping name**
- **DOT** Organic peroxide type D, solid
- **ADR** 3106 Organic peroxide type D, solid
- **IMDG, IATA** ORGANIC PEROXIDE TYPE D, SOLID

· **Transport hazard class(es)**

· **DOT**



- **Class** 5.2 Organic peroxides
- **Label** 5.2, 1

· **ADR**



- **Class** 5.2 Organic peroxides
- **Label** 5.2+1

· **IMDG**



- **Class** 5.2 Organic peroxides
- **Label** 5.2/1

· **IATA**



- **Class** 5.2 Organic peroxides

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· Label	5.2 (1)
· Packing group	II
· DOT, IMDG	II
· ADR, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Organic peroxides
· Danger code (Kemler):	-
· EMS Number:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: Forbidden On cargo aircraft only: Forbidden
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

94-36-0 dibenzoyl peroxide

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

94-36-0 dibenzoyl peroxide

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02

GHS07

GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

dicyclohexyl phthalate

dibenzoyl peroxide

· **Hazard statements**

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep/Store away from clothing/combustible materials.

Keep only in original container.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

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

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Protect from sunlight.

Store at temperatures not exceeding 70°F. Keep cool.

Store away from other materials.

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

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

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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.

· **Date of preparation / last revision** 09/13/2018 / -

· **Abbreviations and acronyms:**

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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Org. Perox. D: Organic peroxides – Type C/D

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1A: Reproductive toxicity – Category 1A

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Revision: 13.09.2018

1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 8100 HARDENER 1
- **Article number:** 14654(H1)
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS02 flame

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



GHS08 health hazard

Repr. 1A H360 May damage fertility or the unborn child.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

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

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- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
dicyclohexyl phthalate
dibenzoyl peroxide
- **Hazard statements**
Heating may cause a fire.
Causes serious eye irritation.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
- **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep/Store away from clothing/combustible materials.
Keep only in original container.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Protect from sunlight.
Store at temperatures not exceeding 20°C. Keep cool.
Store away from other materials.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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- **Dangerous components:**

94-36-0	dibenzoyl peroxide	>25-≤50%
84-61-7	dicyclohexyl phthalate	>25-≤50%

- **SVHC**

84-61-7	dicyclohexyl phthalate
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First Aid Measures

- **Description of first aid measures**

- **After inhalation:**

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

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

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

- **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **Protective equipment:** No special measures required.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:** Pick up mechanically.

- **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.

7 Handling and Storage

- **Handling:**

- **Precautions for safe handling** No special precautions are necessary if used correctly.

- **Information about fire - and explosion protection:** No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

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- **Further information about storage conditions:** Keep container tightly sealed.
- **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.
- **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

94-36-0 dibenzoyl peroxide

NES Long-term value: 5 mg/m³

Sen

WES Long-term value: 5 mg/m³

Sen

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

-AU-

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9 Physical and Chemical Properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Powder
Colour:	White
· Odour:	Weak, characteristic
· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gas):	May cause fire.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	1 hPa
· Density at 20 °C:	1.23 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
VOC (EC)	0.00 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation 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 (carcinogenicity, mutagenicity and toxicity for reproduction)**
Repr. 1A

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA | <p>UN3106</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · ADG | <p>3106 ORGANIC PEROXIDE TYPE D, SOLID</p> |

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· IMDG, IATA	ORGANIC PEROXIDE TYPE D, SOLID
· Transport hazard class(es)	
· ADG	
	
· Class	5.2 Organic peroxides.
· Label	5.2+1
· IMDG	
	
· Class	5.2 Organic peroxides.
· Label	5.2/1
· IATA	
	
· Class	5.2 Organic peroxides.
· Label	5.2 (1)
· Packing group	
· ADG, IATA	not regulated
· IMDG	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Organic peroxides.
· Danger code (Kemler):	-
· EMS Number:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· UN "Model Regulation":	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

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Safety Data Sheet

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

94-36-0 dibenzoyl peroxide

S2, S4, S5

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02

GHS07

GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

dicyclohexyl phthalate

dibenzoyl peroxide

· **Hazard statements**

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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

Keep/Store away from clothing/combustible materials.

Keep only in original container.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

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

IF ON SKIN: Wash with plenty of water.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Protect from sunlight.

Store at temperatures not exceeding 20°C. Keep cool.

Store away from other materials.

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

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- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
 - **National regulations:**
 - **Other regulations, limitations and prohibitive regulations**
 - **Substances of very high concern (SVHC) according to REACH, Article 57**
- | | |
|---------|------------------------|
| 84-61-7 | dicyclohexyl phthalate |
|---------|------------------------|
- **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.

· **Abbreviations and acronyms:**

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
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Org. Perox. D: Organic peroxides – Type C/D
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Skin Sens. 1: Skin sensitisation – Category 1
 Repr. 1A: Reproductive toxicity – Category 1A

-AU-

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/13/2018

Reviewed on 09/13/2018

1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 8100 HARDENER 1
- **Article number:** 14654(H1)
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Organic Peroxides – Type D H242 Heating may cause a fire.



GHS08 Health hazard

Reproductive Toxicity - Category 1A H360 May damage fertility or the unborn child.



GHS07

Eye Irritation - Category 2A H319 Causes serious eye irritation.
Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
dicyclohexyl phthalate
dibenzoyl peroxide
- **Hazard statements**
Heating may cause a fire.

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Safety Data Sheet

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Trade name: TECHNOVIT 8100 HARDENER 1

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Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep only in original packaging.

Ground and bond container and receiving equipment.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

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

If on skin: Wash with plenty of water.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

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

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place.

Store locked up.

Protect from sunlight.

Store at temperatures not exceeding 20°C.

Store separately.

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

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 2

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

· HMIS-ratings (scale 0 - 4)



Health = *2

Fire = 3

Reactivity = 0

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

94-36-0	dibenzoyl peroxide	30-60% w/w *
84-61-7	dicyclohexyl phthalate	30-60% w/w *

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Trade name: TECHNOVIT 8100 HARDENER 1

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* Actual concentration ranges are withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

94-36-0 dibenzoyl peroxide

EL Long-term value: 5 mg/m³

EV Long-term value: 5 mg/m³

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Powder

Color: White

· **Odor:** Weak, characteristic

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· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	May cause fire.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C:	1 hPa
· Density at 20 °C:	1.23 g/cm ³
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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- **on the eye:** Irritating effect.
 - **Sensitization:** Sensitization possible through skin contact.
 - **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
 - **Carcinogenic categories**
- | | |
|---|---|
| · IARC (International Agency for Research on Cancer) | |
| 94-36-0 dibenzoyl peroxide | 3 |
- **NTP (National Toxicology Program)**
- | |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|----------------------------------|-------------------------------------|
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN3106 |
| · UN proper shipping name | |
| · DOT | Organic peroxide type D, solid |
| · TDG | 3106 Organic peroxide type D, solid |
| · IMDG, IATA | ORGANIC PEROXIDE TYPE D, SOLID |

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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· **Transport hazard class(es)**· **DOT**

· **Class** 5.2 Organic peroxides
 · **Label** 5.2, 1
 · **TDG (Transport dangerous goods):**



· **Class** 5.2 Organic peroxides
 · **Label** 5.2+1

· **IMDG**

· **Class** 5.2 Organic peroxides
 · **Label** 5.2/1

· **IATA**

· **Class** 5.2 Organic peroxides
 · **Label** 5.2 (1)

· **Packing group**· **DOT, IMDG** II· **TDG, IATA** Void· **Environmental hazards:** Not applicable.· **Special precautions for user** Warning: Organic peroxides· **Danger code (Kemler):** -· **EMS Number:** F-J,S-R· **Stowage Category** D· **Stowage Code** SW1 Protected from sources of heat.· **Segregation Code** SG35 Stow "separated from" acids.

SG36 Stow "separated from" alkalis.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**· **DOT**

· **Quantity limitations** On passenger aircraft/rail: Forbidden
 On cargo aircraft only: Forbidden

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acc. to OSHA HCS

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Trade name: **TECHNOVIT 8100 HARDENER 1**

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- | | |
|---|--|
| <ul style="list-style-type: none"> · TDG · Excepted quantities (EQ) | <p>Code: E0
Not permitted as Excepted Quantity</p> |
| <ul style="list-style-type: none"> · UN "Model Regulation": | <p>UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)</p> |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

94-36-0 | dibenzoyl peroxide

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

94-36-0 | dibenzoyl peroxide

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

dicyclohexyl phthalate

dibenzoyl peroxide

- **Hazard statements**

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

- **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep only in original packaging.

Ground and bond container and receiving equipment.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

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Reviewed on 09/13/2018

Trade name: TECHNOVIT 8100 HARDENER 1

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Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Take off contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use for extinction: CO₂, powder or water spray.
 Store in a well-ventilated place.
 Store locked up.
 Protect from sunlight.
 Store at temperatures not exceeding 20°C.
 Store separately.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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.

· **Date of the latest revision of the safety data sheet** 09/13/2018 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative

CA

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 13.09.2018

Revision: 13.09.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** TECHNOVIT 8100 HARDENER 1
- **Article number:** 14654(H1)
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

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



GHS08 health hazard

Repr. 1B H360D May damage the unborn child.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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

- **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

- **Signal word** *Danger*

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 13.09.2018

Revision: 13.09.2018

Trade name: **TECHNOVIT 8100 HARDENER 1**

(Contd. of page 1)

- **Hazard-determining components of labelling:**

dicyclohexyl phthalate

dibenzoyl peroxide

- **Hazard statements**

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H360D May damage the unborn child.

- **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P405 Store locked up.

P410 Protect from sunlight.

P411+P235 Store at temperatures not exceeding 20°C. Keep cool.

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.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 94-36-0	dibenzoyl peroxide	>25-≤50%
EINECS: 202-327-6	  Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	dicyclohexyl phthalate	>25-≤50%
EINECS: 201-545-9	 Repr. 1B, H360D;  Skin Sens. 1, H317	

- **SVHC**

84-61-7	dicyclohexyl phthalate
---------	------------------------

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **After inhalation:**

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

In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

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.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/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	Long-term value: 5 mg/m ³
-----	--------------------------------------

84-61-7 dicyclohexyl phthalate

WEL	Long-term value: 5 mg/m ³
-----	--------------------------------------

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Powder

Colour: White

· **Odour:** Weak, characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** May cause fire.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

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· Vapour pressure at 20 °C:	1 hPa
· Density at 20 °C:	1.23 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
VOC (EC)	0.00 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
May damage the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|---|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN3106 |
| · 14.2 UN proper shipping name | |
| · ADR | 3106 ORGANIC PEROXIDE TYPE D, SOLID |
| · IMDG, IATA | ORGANIC PEROXIDE TYPE D, SOLID |
| · 14.3 Transport hazard class(es) | |
| · ADR | |
| |  |
| · Class | 5.2 Organic peroxides. |
| · Label | 5.2+1 |
| · IMDG | |
| |  |
| · Class | 5.2 Organic peroxides. |

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· Label	5.2/1
· IATA	
	
· Class	5.2 Organic peroxides.
· Label	5.2 (1)
· 14.4 Packing group	
· ADR, IATA	not regulated
· IMDG	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Organic peroxides.
· Danger code (Kemler):	-
· EMS Number:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· UN "Model Regulation":	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 30
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**

84-61-7 dicyclohexyl phthalate

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

SECTION 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.

H360D May damage the unborn child.

· **Abbreviations and acronyms:**

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 Harmonised 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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Organic peroxides – Type B

Org. Perox. D: Organic peroxides – Type C/D

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1B: Reproductive toxicity – Category 1B

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RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** TECHNOVIT 8100 HARDENER 1
- **Artikelnummer:** 14654(H1)
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Aurion**
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS02 vlam

Org. Perox. D H242 Brandgevaar bij verwarming.



GHS08 gezondheidsgevaar

Repr. 1B H360D Kan het ongeboren kind schaden.



GHS07

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

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· Gevarenpictogrammen



GHS02 GHS07 GHS08

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

dicyclohexylftalaat
dibenzoylperoxide

· Gevarenaanduidingen

H242 Brandgevaar bij verwarming.
H319 Veroorzaakt ernstige oogirritatie.
H317 Kan een allergische huidreactie veroorzaken.
H360D Kan het ongeboren kind schaden.

· Veiligheidsaanbevelingen

P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
P405 Achter slot bewaren.
P410 Tegen zonlicht beschermen.
P411+P235 Bij maximaal 20°C bewaren. Koel bewaren.
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

· **PBT:** Niet bruikbaar.
· **zPzB:** Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.2 Chemische karakterisering: Mengsels

· **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

· Gevaarlijke inhoudstoffen:

CAS: 94-36-0	dibenzoylperoxide	>25-≤50%
EINECS: 202-327-6	Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	dicyclohexylftalaat	>25-≤50%
EINECS: 201-545-9	Repr. 1B, H360D; Skin Sens. 1, H317	

· SVHC

84-61-7	dicyclohexylftalaat
---------	---------------------

· Aanvullende gegevens:

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen

· Na het inademen:

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

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- Bij bewusteloosheid ligging en vervoer in stabiele zijligging.*
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:**
De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.
- **Na inslikken:** Als de klachten niet minderen, een arts raadplegen
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.
- **6.2 Milieuvorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:** Mechanisch opnemen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Bij een deskundig gebruik zijn geen bijzondere maatregelen vereist.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Geen bijzondere maatregelen noodzakelijk.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.

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- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Aanraking met de ogen vermijden.
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:** *Niet noodzakelijk.*
- **Handbescherming:**



Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

- **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

- **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

- **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**

- **Algemene gegevens**

- **Voorkomen:**

Vorm:	Poeder
Kleur:	Wit
Geur:	Zwak, karakteristiek
Geurdrempelwaarde:	Niet bepaald.

- **pH-waarde:** Niet bruikbaar.

- **Toestandsverandering**

Smelt-/vriespunt:	Niet bepaald.
Beginkookpunt en kooktraject:	Niet bepaald.

- **Vlampunt:** Niet bruikbaar.

- **Ontvlambaarheid (vast, gas):** Kan brand veroorzaken.

- **Ontledingstemperatuur:** Niet bepaald.

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· Zelfontbrandingstemperatuur:	Het produkt ontbrandt niet uit zichzelf.
· Ontploffingseigenschappen:	Het produkt is niet ontploffingsgevaarlijk.
· Ontploffingsgrenzen:	
Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.
· Dampspanning bij 20 °C:	1 hPa
· Dichtheid bij 20 °C:	1,23 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bruikbaar.
· Verdampingssnelheid	Niet bruikbaar.
· Oplosbaarheid in/mengbaarheid met Water:	Niet oplosbaar.
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bruikbaar.
Kinematisch:	Niet bruikbaar.
· Oplosmiddelgehalte:	
VOC (EG)	0,00 %
Gehalte aan vaste bestanddelen:	100,0 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting**
Kan het ongeboren kind schaden.

(Vervolg op blz. 6)

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(Vervolg van blz. 5)

- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.


RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN3106
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 3106 ORGANISCH PEROXIDE, TYPE D, VAST
- **IMDG, IATA** ORGANIC PEROXIDE TYPE D, SOLID
- **14.3 Transportgevarenklasse(n)**
- **ADR**
- 
- **klasse** 5.2 Organische peroxiden

(Vervolg op blz. 7)

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· Etiket	5.2+1
· IMDG	
	
· Class	5.2 Organische peroxiden
· Label	5.2/1
· IATA	
	
· Class	5.2 Organische peroxiden
· Label	5.2 (1)
· 14.4 Verpakkingsgroep:	
· ADR, IATA	Niet van toepassing
· IMDG	II
· 14.5 Milieugevaren:	Niet bruikbaar.
· 14.6 Bijzondere voorzorgen voor de gebruiker	Waarschuwing: Organische peroxiden
· Kemler-getal:	-
· EMS-nummer:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code	Niet bruikbaar.
· Transport/verdere gegevens:	
· ADR	
· Beperkte hoeveelheden (LQ)	500 g
· Uitgezonderde hoeveelheden (EQ)	Code: E0 Niet toegestaan als vrijgestelde hoeveelheid
· Vervoerscategorie	2
· Tunnelbeperkingscode	D
· VN "Model Regulation":	UN 3106 ORGANISCH PEROXIDE, TYPE D, VAST, 5.2 (1)

RUBRIEK 15: Regelgeving

· **15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel**

· **SZW-lijst van kankerverwekkende stoffen**

geen der bestanddelen staat op de lijst.

· **SZW-lijst van mutagene stoffen**

geen der bestanddelen staat op de lijst.

(Vervolg op blz. 8)

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· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

geen der bestanddelen staat op de lijst.

· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** geen der bestanddelen staat op de lijst.

· **Seveso-categorie P6b ZELFONTLEDENDE STOFFEN EN MENGSELS en ORGANISCHE PEROXIDEN**

· **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 50 t**

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 200 t**

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 30

· **Nationale voorschriften:**

· **Gevaarklasse v. water:**

Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

· **Zeer zorgwekkende stoffen (SVHC) volgens REACH, artikel 57**

84-61-7 dicyclohexylfitalaat

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Relevante zinnen**

H241 Brand- of ontploffingsgevaar bij verwarming.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H360D Kan het ongeboren kind schaden.

· **Afkortingen en acroniemen:**

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 Harmonised 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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Organische peroxiden – Type B

Org. Perox. D: Organische peroxiden – Type C/D

Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2

Skin Sens. 1: Sensibilisatie van de huid – Categorie 1

Repr. 1B: Voortplantingstoxiciteit – Categorie 1B

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RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** TECHNOVIT 8100 HARDENER 1
- **Code du produit:** 14654(H1)
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Org. Perox. D H242 Peut s'enflammer sous l'effet de la chaleur.



GHS08 danger pour la santé

Repr. 1B H360D Peut nuire au fœtus.



GHS07

Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.
- **Pictogrammes de danger**



GHS02



GHS07



GHS08

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**
phtalate de dicyclohexyle

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peroxyde de dibenzoyle

· Mentions de danger

H242 Peut s'enflammer sous l'effet de la chaleur.

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H360D Peut nuire au fœtus.

· Conseils de prudence

P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.

P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

P405 Garder sous clef.

P410 Protéger du rayonnement solaire.

P411+P235 Stocker à une température ne dépassant pas 20°C. Tenir au frais.

P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.





· 2.3 Autres dangers
· Résultats des évaluations PBT et vPvB
· PBT: Non applicable.

· vPvB: Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

· 3.2 Caractérisation chimique: Mélanges
· Description: Mélange des substances mentionnées à la suite avec des additifs non dangereux.

· Composants dangereux:

CAS: 94-36-0	peroxyde de dibenzoyle	>25-≤50%
EINECS: 202-327-6	 Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	phtalate de dicyclohexyle	>25-≤50%
EINECS: 201-545-9	 Repr. 1B, H360D;  Skin Sens. 1, H317	

· SVHC

84-61-7	phtalate de dicyclohexyle	
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· Indications complémentaires: Pour le libellé des phrases de risque citées, se référer au chapitre 16.

RUBRIQUE 4: Premiers secours

· 4.1 Description des premiers secours
· Après inhalation:

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· Après contact avec la peau: Laver immédiatement à l'eau et au savon et bien rincer.

· Après contact avec les yeux:

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.

· Après ingestion: Si les troubles persistent, consulter un médecin.

· 4.2 Principaux symptômes et effets, aigus et différés Pas d'autres informations importantes disponibles.

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- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**
Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.
- **6.2 Précautions pour la protection de l'environnement:**
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:** Recueillir par moyen mécanique.
- **6.4 Référence à d'autres rubriques**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Aucune mesure particulière n'est nécessaire en cas de bonne utilisation.
- **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **Indications complémentaires pour l'agencement des installations techniques:**
Sans autre indication, voir point 7.

- **8.1 Paramètres de contrôle**

- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

94-36-0 peroxyde de dibenzoyl

VME	Valeur à long terme: 5 mg/m ³
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- **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

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- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.
Retirer immédiatement les vêtements souillés ou humectés.
Se laver les mains avant les pauses et en fin de travail.
Eviter tout contact avec les yeux.
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:** N'est pas nécessaire.
- **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.
Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

- **Matériau des gants**
Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.
- **Temps de pénétration du matériau des gants**
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.
- **Protection des yeux:**



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

- **9.1 Informations sur les propriétés physiques et chimiques essentielles**
- **Indications générales**
- **Aspect:**

Forme:	Poudre
Couleur:	Blanc
Odeur:	Faible, caractéristique
Seuil olfactif:	Non déterminé.
- **valeur du pH:** Non applicable.
- **Changement d'état**

Point de fusion/point de congélation:	Non déterminé.
Point initial d'ébullition et intervalle d'ébullition:	Non déterminé.
- **Point d'éclair** Non applicable.
- **Inflammabilité (solide, gaz):** Peut provoquer un incendie.
- **Température de décomposition:** Non déterminé.

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· Température d'auto-inflammabilité:	<i>Le produit ne s'enflamme pas spontanément.</i>
· Propriétés explosives:	<i>Le produit n'est pas explosif.</i>
· Limites d'explosion: Inférieure: Supérieure:	<i>Non déterminé.</i> <i>Non déterminé.</i>
· Pression de vapeur à 20 °C:	<i>1 hPa</i>
· Densité à 20 °C: · Densité relative · Densité de vapeur: · Taux d'évaporation:	<i>1,23 g/cm³</i> <i>Non déterminé.</i> <i>Non applicable.</i> <i>Non applicable.</i>
· Solubilité dans/miscibilité avec l'eau:	<i>Insoluble</i>
· Coefficient de partage: n-octanol/eau:	<i>Non déterminé.</i>
· Viscosité: Dynamique: Cinématique:	<i>Non applicable.</i> <i>Non applicable.</i>
· Teneur en solvants: VOC (CE)	<i>0,00 %</i>
Teneur en substances solides: · 9.2 Autres informations	<i>100,0 %</i> <i>Pas d'autres informations importantes disponibles.</i>

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** *Pas d'autres informations importantes disponibles.*
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** *Pas de décomposition en cas d'usage conforme.*
- **10.3 Possibilité de réactions dangereuses** *Aucune réaction dangereuse connue.*
- **10.4 Conditions à éviter** *Pas d'autres informations importantes disponibles.*
- **10.5 Matières incompatibles:** *Pas d'autres informations importantes disponibles.*
- **10.6 Produits de décomposition dangereux:** *Pas de produits de décomposition dangereux connus*

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** *Compte tenu des données disponibles, les critères de classification ne sont pas remplis.*
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Lésions oculaires graves/irritation oculaire**
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** *Compte tenu des données disponibles, les critères de classification ne sont pas remplis.*

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- **Toxicité pour la reproduction**
Peut nuire au fœtus.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

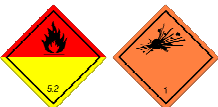
RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 1 (D) (Classification propre): peu polluant
Ne pas laisser le produit, non dilué ou en grande quantité, pénétrer la nappe phréatique, les eaux ou les canalisations.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.

RUBRIQUE 14: Informations relatives au transport

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA | <p>UN3106</p> |
| <ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG, IATA | <p>3106 PEROXYDE ORGANIQUE DE TYPE D, SOLIDE
ORGANIC PEROXIDE TYPE D, SOLID</p> |
| <ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR | |
|  | |
| <ul style="list-style-type: none"> · Classe | <p>5.2 Peroxydes organiques.</p> |

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· Étiquette	5.2+1
· IMDG	
	
· Class	5.2 Peroxydes organiques.
· Label	5.2/1
· IATA	
	
· Class	5.2 Peroxydes organiques.
· Label	5.2 (1)
· 14.4 Groupe d'emballage	
· ADR, IATA	néant
· IMDG	II
· 14.5 Dangers pour l'environnement:	Non applicable.
· 14.6 Précautions particulières à prendre par l'utilisateur	Attention: Peroxydes organiques.
· Indice Kemler:	-
· No EMS:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC	Non applicable.
· Indications complémentaires de transport:	
· ADR	
· Quantités limitées (LQ)	500 g
· Quantités exceptées (EQ)	Code: E0 Non autorisé en tant que quantité exceptée
· Catégorie de transport	2
· Code de restriction en tunnels	D
· "Règlement type" de l'ONU:	UN 3106 PEROXYDE ORGANIQUE DE TYPE D, SOLIDE, 5.2 (1)

RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **Catégorie SEVESO P6b** SUBSTANCES ET MÉLANGES AUTORÉACTIFS et PEROXYDES ORGANIQUES

(suite page 8)

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

Date d'impression : 13.09.2018

Révision: 13.09.2018

Nom du produit: TECHNOVIT 8100 HARDENER 1

(suite de la page 7)

- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 50 t**
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 200 t**
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 30**

· **Prescriptions nationales:**

· **Autres prescriptions, restrictions et règlements d'interdiction**

· **Substances extrêmement préoccupantes (SVHC) selon REACH, article 57**

84-61-7	phtalate de dicyclohexyle
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· **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Phrases importantes**

H241 Peut s'enflammer ou exploser sous l'effet de la chaleur.

H317 Peut provoquer une allergie cutanée.

H319 Provoque une sévère irritation des yeux.

H360D Peut nuire au fœtus.

· **Acronymes et abréviations:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised 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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Peroxydes organiques – Type B

Org. Perox. D: Peroxydes organiques – Type C/D

Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2

Skin Sens. 1: Sensibilisation cutanée – Catégorie 1

Repr. 1B: Toxicité pour la reproduction – Catégorie 1B

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

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überarbeitet am: 13.09.2018

ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** TECHNOVIT 8100 HARDENER 1
- **Artikelnummer:** 14654(H1)
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffs / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany

Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Org. Perox. D H242 Erwärmung kann Brand verursachen.



GHS08 Gesundheitsgefahr

Repr. 1B H360D Kann das Kind im Mutterleib schädigen.



GHS07

Eye Irrit. 2 H319 Verursacht schwere Augenreizung.

Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

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- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**
Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS02 GHS07 GHS08

- **Signalwort Gefahr**
- **Gefahrbestimmende Komponenten zur Etikettierung:**
Dicyclohexylphthalat
Dibenzoylperoxid
- **Gefahrenhinweise**
H242 Erwärmung kann Brand verursachen.
H319 Verursacht schwere Augenreizung.
H317 Kann allergische Hautreaktionen verursachen.
H360D Kann das Kind im Mutterleib schädigen.
- **Sicherheitshinweise**
P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.
P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
P405 Unter Verschluss aufbewahren.
P410 Vor Sonnenbestrahlung schützen.
P411+P235 Bei Temperaturen nicht über 20 °C aufbewahren. Kühl halten.
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **Zusätzliche Angaben:**
Nur für gewerbliche Anwender.
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.2 Chemische Charakterisierung: Gemische**
- **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

- **Gefährliche Inhaltsstoffe:**

CAS: 94-36-0	Dibenzoylperoxid	>25-≤50%
EINECS: 202-327-6	Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	Dicyclohexylphthalat	>25-≤50%
EINECS: 201-545-9	Repr. 1B, H360D; Skin Sens. 1, H317	

- **SVHC**

84-61-7	Dicyclohexylphthalat
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- **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

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ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**

· **Nach Einatmen:**

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.

· **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· **Nach Augenkontakt:**

Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.

· **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.

· **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**

Keine weiteren relevanten Informationen verfügbar.

· **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· **5.1 Löschmittel**

· **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.

· **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**

Keine weiteren relevanten Informationen verfügbar.

· **5.3 Hinweise für die Brandbekämpfung**

· **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Nicht erforderlich.

· **6.2 Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· **6.3 Methoden und Material für Rückhaltung und Reinigung:** Mechanisch aufnehmen.

· **6.4 Verweis auf andere Abschnitte**

Informationen zur sicheren Handhabung siehe Abschnitt 7.

Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

· **7.1 Schutzmaßnahmen zur sicheren Handhabung**

Bei sachgemäßer Verwendung keine besonderen Maßnahmen erforderlich.

· **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.

· **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**

· **Lagerung:**

· **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.

· **Zusammenlagerungshinweise:** Nicht erforderlich.

· **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.

· **Lagerklasse:**

· **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -

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· **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

· **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

· **8.1 Zu überwachende Parameter**

· **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**

94-36-0 Dibenzoylperoxid

AGW	Langzeitwert: 5 E mg/m ³ I(1);DFG
-----	---

· **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

· **8.2 Begrenzung und Überwachung der Exposition**

· **Persönliche Schutzausrüstung:**

· **Allgemeine Schutz- und Hygienemaßnahmen:**

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Berührung mit den Augen vermeiden.

Berührung mit den Augen und der Haut vermeiden.

· **Atemschutz:** Nicht erforderlich.

· **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**



Dichtschließende Schutzbrille

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ABSCHNITT 9: Physikalische und chemische Eigenschaften

· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

· Allgemeine Angaben

· Aussehen:

Form:	Pulver
Farbe:	Weiß
Geruch:	Schwach, charakteristisch
Geruchsschwelle:	Nicht bestimmt.

· **pH-Wert:** Nicht anwendbar.

· Zustandsänderung

Schmelzpunkt/Gefrierpunkt:	Nicht bestimmt.
Siedebeginn und Siedebereich:	Nicht bestimmt.

· **Flammpunkt:** Nicht anwendbar.

· **Entzündbarkeit (fest, gasförmig):** Kann Brand verursachen.

· **Zersetzungstemperatur:** Nicht bestimmt.

· **Selbstentzündungstemperatur:** Das Produkt ist nicht selbstentzündlich.

· **Explosive Eigenschaften:** Das Produkt ist nicht explosionsgefährlich.

· Explosionsgrenzen:

Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.

· **Dampfdruck bei 20 °C:** 1 hPa

Dichte bei 20 °C:	1,23 g/cm ³
Relative Dichte	Nicht bestimmt.
Dampfdichte	Nicht anwendbar.
Verdampfungsgeschwindigkeit	Nicht anwendbar.

· **Löslichkeit in / Mischbarkeit mit Wasser:** Unlöslich.

· **Verteilungskoeffizient: n-Octanol/Wasser:** Nicht bestimmt.

· Viskosität:

Dynamisch:	Nicht anwendbar.
Kinematisch:	Nicht anwendbar.

· Lösemittelgehalt:

VOC (EU) 0,00 %

Festkörpergehalt: 100,0 %

· **9.2 Sonstige Angaben** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

· **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.

· **10.2 Chemische Stabilität**

· **Thermische Zersetzung / zu vermeidende Bedingungen:**

Keine Zersetzung bei bestimmungsgemäßer Verwendung.

· **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.

· **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.

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- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Schwere Augenschädigung/-reizung**
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität**
Kann das Kind im Mutterleib schädigen.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend
Nicht unverdünnt bzw. in größeren Mengen in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

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ABSCHNITT 14: Angaben zum Transport

<ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA 	UN3106
<ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG, IATA 	3106 ORGANISCHES PEROXID TYP D, FEST ORGANIC PEROXIDE TYPE D, SOLID
<ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR 	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> · Klasse · Gefahrzettel 	5.2 Organische Peroxide 5.2+1
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	5.2 Organische Peroxide 5.2/1
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	5.2 Organische Peroxide 5.2 (1)
<ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IATA · IMDG 	entfällt II
<ul style="list-style-type: none"> · 14.5 Umweltgefahren: 	Nicht anwendbar.
<ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Kemler-Zahl: · EMS-Nummer: · Stowage Category · Stowage Code · Segregation Code 	Achtung: Organische Peroxide - F-J,S-R D SW1 Protected from sources of heat. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
<ul style="list-style-type: none"> · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code 	Nicht anwendbar.
<ul style="list-style-type: none"> · Transport/weitere Angaben: 	<hr style="border-top: 1px dashed #000;"/> <ul style="list-style-type: none"> · ADR · Begrenzte Menge (LQ)
<ul style="list-style-type: none"> · ADR · Begrenzte Menge (LQ) 	500 g

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· Freigestellte Mengen (EQ)	Code: E0 In freigestellten Mengen nicht zugelassen
· Beförderungskategorie	2
· Tunnelbeschränkungscode	D
· UN "Model Regulation":	UN 3106 ORGANISCHES PEROXID TYP D, FEST, 5.2 (1)

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **Seveso-Kategorie P6b SELBSTZERSETZLICHE STOFFE UND GEMISCHE und ORGANISCHE PEROXIDE**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 50 t**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 200 t**
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 30
- **Nationale Vorschriften:**
- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**
Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe

- **Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57**

84-61-7	Dicyclohexylphthalat
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- **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

- **Relevante Sätze**
H241 Erwärmung kann Brand oder Explosion verursachen.
H317 Kann allergische Hautreaktionen verursachen.
H319 Verursacht schwere Augenreizung.
H360D Kann das Kind im Mutterleib schädigen.
- **Abkürzungen und Akronyme:**
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 Harmonised 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)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Org. Perox. B: Organische Peroxide – Typ B
Org. Perox. D: Organische Peroxide – Typ C/D
Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2
Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1
Repr. 1B: Reproduktionstoxizität – Kategorie 1B

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 13.09.2018

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SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** TECHNOVIT 8100 HARDENER 1
- **Articolo numero:** 14654(H1)
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com

Societa Italiana Chimici
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Org. Perox. D H242 Rischio d'incendio per riscaldamento.



GHS08 pericolo per la salute

Repr. 1B H360D Può nuocere al feto.



GHS07

Eye Irrit. 2 H319 Provoca grave irritazione oculare.

Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.

- **2.2 Elementi dell'etichetta**
- **Etichettatura secondo il regolamento (CE) n. 1272/2008**
Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

(continua a pagina 2)

Scheda di dati di sicurezza
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(Segue da pagina 1)

Pittogrammi di pericolo

GHS02 GHS07 GHS08

Avvertenza Pericolo**Componenti pericolosi che ne determinano l'etichettatura:**

dicicloesilftalato
perossido di dibenzoile

Indicazioni di pericolo

H242 Rischio d'incendio per riscaldamento.
H319 Provoca grave irritazione oculare.
H317 Può provocare una reazione allergica cutanea.
H360D Può nuocere al feto.

Consigli di prudenza

P210 Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare.
P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
P405 Conservare sotto chiave.
P410 Proteggere dai raggi solari.
P411+P235 Conservare in luogo fresco a temperature non superiori a 20°C.
P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

2.3 Altri pericoli**Risultati della valutazione PBT e vPvB**

PBT: Non applicabile.
vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti**3.2 Caratteristiche chimiche: Miscela****Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.**Sostanze pericolose:**

CAS: 94-36-0 EINECS: 202-327-6	perossido di dibenzoile Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	>25-≤50%
CAS: 84-61-7 EINECS: 201-545-9	dicicloesilftalato Repr. 1B, H360D; Skin Sens. 1, H317	>25-≤50%

SVHC

84-61-7	dicicloesilftalato
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Ulteriori indicazioni: Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16**SEZIONE 4: Misure di primo soccorso****4.1 Descrizione delle misure di primo soccorso****Inalazione:**

Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.
Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

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- **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- **Contatto con gli occhi:**
Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.
- **Ingestione:** Se il dolore persiste consultare il medico.
- **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.
- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** Non necessario.
- **6.2 Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:** Raccogliere con mezzi meccanici.
- **6.4 Riferimento ad altre sezioni**
Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura** Per un uso corretto non sono necessari provvedimenti particolari.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **8.1 Parametri di controllo**

· **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**

94-36-0 perossido di dibenzoile

TWA	Valore a lungo termine: 5 mg/m ³
A4	

- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

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- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell'intervallo o a lavoro terminato.
Evitare il contatto con gli occhi.
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:** Non necessario.
- **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione. A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche. Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

- **Materiale dei guanti**
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego
- **Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
- **Occhiali protettivi:**



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

- **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**
- **Indicazioni generali**
- **Aspetto:**

Forma:	Polvere
Colore:	Bianco
- **Odore:** Leggero, caratteristico
- **Soglia olfattiva:** Non definito.
- **valori di pH:** Non applicabile.
- **Cambiamento di stato**

Punto di fusione/punto di congelamento:	Non definito.
Punto di ebollizione iniziale e intervallo di ebollizione:	Non definito.
- **Punto di infiammabilità:** Non applicabile.
- **Infiammabilità (solidi, gas):** Può provocare un incendio.
- **Temperatura di decomposizione:** Non definito.

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· Temperatura di autoaccensione:	Prodotto non autoinfiammabile.
· Proprietà esplosive:	Prodotto non esplosivo.
· Limiti di infiammabilità:	
Inferiore:	Non definito.
Superiore:	Non definito.
· Tensione di vapore a 20 °C:	1 hPa
· Densità a 20 °C:	1,23 g/cm ³
· Densità relativa	Non definito.
· Densità di vapore:	Non applicabile.
· Velocità di evaporazione	Non applicabile.
· Solubilità in/Miscibilità con acqua:	Insolubile.
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica:	Non applicabile.
Cinematica:	Non applicabile.
· Tenore del solvente:	
VOC (CE)	0,00 %
Contenuto solido:	100,0 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

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IT

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- **Tossicità per la riproduzione**
Può nuocere al feto.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.


SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 1 (D) (Autoclassificazione): poco pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature non diluito o in grandi quantità.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

- **14.1 Numero ONU**
- **ADR, IMDG, IATA** UN3106
- **14.2 Nome di spedizione dell'ONU**
- **ADR** 3106 PEROSSIDO ORGANICO DI TIPO D, SOLIDO
- **IMDG, IATA** ORGANIC PEROXIDE TYPE D, SOLID
- **14.3 Classi di pericolo connesso al trasporto**
- **ADR**
- 
- **Classe** 5.2 Perossidi organici

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· Etichetta	5.2+1
· IMDG	
	
· Class	5.2 Perossidi organici
· Label	5.2/1
· IATA	
	
· Class	5.2 Perossidi organici
· Label	5.2 (1)
· 14.4 Gruppo di imballaggio	
· ADR, IATA	non applicabile
· IMDG	II
· 14.5 Pericoli per l'ambiente:	Non applicabile.
· 14.6 Precauzioni speciali per gli utilizzatori	Attenzione: Perossidi organici
· Numero Kemler:	-
· Numero EMS:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· 14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	500 g
· Quantità esenti (EQ)	Codice: E0 Vietato al trasporto in quantità esente
· Categoria di trasporto	2
· Codice di restrizione in galleria	D
· UN "Model Regulation":	UN 3106 PEROSSIDO ORGANICO DI TIPO D, SOLIDO, 5.2 (1)

SEZIONE 15: Informazioni sulla regolamentazione

- 15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela
- Direttiva 2012/18/UE
- Sostanze pericolose specificate - ALLEGATO I Nessuno dei componenti è contenuto.
- Categoria Seveso P6b SOSTANZE E MISCELE AUTOREATTIVE e PEROSSIDI ORGANICI
- Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t

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Scheda di dati di sicurezza
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- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII Restrizioni: 30**

- **Disposizioni nazionali:**

- **Ulteriori disposizioni, limitazioni e decreti proibitivi**

- **Sostanze estremamente preoccupanti (SVHC) ai sensi della regolamento REACH, articolo 57**

84-61-7	dicicloesilfталato
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- **15.2 Valutazione della sicurezza chimica: Una valutazione della sicurezza chimica non è stata effettuata.**

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

- **Frasei rilevanti**

H241 *Rischio d'incendio o di esplosione per riscaldamento.*

H317 *Può provocare una reazione allergica cutanea.*

H319 *Provoca grave irritazione oculare.*

H360D *Può nuocere al feto.*

- **Abbreviazioni e acronimi:**

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 Harmonised 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)*

VOC: *Volatile Organic Compounds (USA, EU)*

PBT: *Persistent, Bioaccumulative and Toxic*

SVHC: *Substances of Very High Concern*

vPvB: *very Persistent and very Bioaccumulative*

Org. Perox. B: *Perossidi organici – Tipo B*

Org. Perox. D: *Perossidi organici – Tipo C/D*

Eye Irrit. 2: *Gravi lesioni oculari/irritazione oculare – Categoria 2*

Skin Sens. 1: *Sensibilizzazione della pelle – Categoria 1*

Repr. 1B: *Tossicità per la riproduzione – Categoria 1B*

製品安全データシート

JIS Z7253 による分類

印刷日: 2018.09.13

改訂日: 2018.09.13

1 化学物質等及び会社情報

- ・製品識別子
- ・商品名: **TECHNOVIT 8100 HARDENER 1**
- ・製品番号: 14654(H1)
- ・該当純物質または混合物の関連特定用途及び使用禁止用途 追加的な関連情報は得られていません。
- ・成分の利用/調合 実験用化学物質
- ・安全データシートの供給元の詳細情報
- ・製造者/納入者:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkck@aol.com
www.emsdiasum.com
- ・その他の情報問い合わせ先: Product safety department
- ・緊急通報用電話番号:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危険有害性の要約

- ・純物質または混合物の分類



火炎

有機過酸化物 タイプD

H242 熱すると火災のおそれ



健康に危険

生殖毒性 区分1B

H360 生殖能又は胎児への悪影響のおそれ



重篤な眼の損傷性/眼刺激性 区分2A H319 強い眼刺激

感作性(皮膚) 区分1

H317 アレルギー性皮膚反応を起こすおそれ

- ・ラベル要素

- ・GHS ラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

- ・危険図表



GHS02



GHS07



GHS08

- ・表示語 危険

- ・危険と定められた成分をラベル表示:

フタル酸ジシクロヘキシル

dibenzoyl peroxide

(2ページに続く)

製品安全データシート

JIS Z7253 による分類

印刷日: 2018.09.13

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商品名: TECHNIVIT 8100 HARDENER 1

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危険文句

- 熱すると火災のおそれ
- 強い眼刺激
- アレルギー性皮膚反応を起こすおそれ
- 生殖能又は胎児への悪影響のおそれ

注意文句

- 熱/火花/裸火/高温のもののような着火源から遠ざけること。 - 禁煙。
- 眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。
- 施錠して保管すること。
- 日光から遮断すること。
- 20 °C 以下の温度で保管すること。涼しいところに置くこと。
- 現地/地域/国/国際規定に従い内容物・容器の露出

その他の危険性

- PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント
- PBT (残留性、生物濃縮性、毒性物質): 情報なし
- vPvB (高残留性、高生物濃縮性物質): 情報なし

3 組成・成分情報

- 化学的特性: 混合物
- 説明: 危険のない混ぜ合わせかたをした以下成分からなる混合物

危険な含有成分:

94-36-0	dibenzoyl peroxide 有機過酸化物 タイプB, H241; 重篤な眼の損傷性/眼刺激性 区分2A, H319; 感作性(皮膚) 区分1, H317	>25-≤50%
84-61-7	フタル酸ジシクロヘキシル 生殖毒性 区分1B, H360; 感作性(皮膚) 区分1, H317	>25-≤50%

4 応急措置

- 応急手当処置に関する説明
- 吸い込んだ場合:
 - 外気を十分に送り込み、安全のため医師を呼ぶ
 - 意識不明の場合には安定させた状態で横向きに寝かせ、移送する
- 皮膚が触れた場合: 即刻石鹼と水で洗い、よくすすぐ
- 眼に入った場合:
 - 瞼を開けたまま、流水で何分間か眼をすすぎ、状態がよくなる場合には医者に相談する
- 飲み込んだ場合: 状態が好転しない場合には医師に相談する
- 医師への指示事項:
 - 最も重要な急性及び慢性の症状及び影響 追加的な関連情報は得られていません。
 - 何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

5 火災時の措置

- 消火剤
- 適切な消火剤: 周辺の状況に合わせた消火措置を取る
- 本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。

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- ・ 消防士向けアドバイス
- ・ 特別な保護装備: 特別な措置は必要としない

6 漏出時の措置

- ・ 個人的予防措置、保護具及び応急処置法 必要ない
- ・ 環境関連予防措置: 下水処理施設、地上水あるいは地下水に達しないようにする
- ・ 封じ込め及び浄化のための方法及び材料: 機械で取り除く
- ・ 他のセクションへの言及
 - 安全な取り扱い方に関しては 7 項を参照
 - 人の保護装備の情報に関しては 8 項を参照
 - 廃棄処分に関しては 13 項参照

7 取扱い・保管上の注意

- ・ 取り扱い方:
 - 安全操作のための予防措置 正しい利用方法の場合には特別な措置は必要ない
 - 火災および爆発防止に関する注意事項: 特別な措置は必要ない
- ・ 混融危険性を含めた安全貯蔵条件
- ・ 保管:
 - 保管スペースおよび容器に関する要求事項: 特別な要求事項なし
 - 同じ場所に保管する際の注意事項: 必要ない
 - 保管条件に関するその他の注意事項: 容器は密閉した状態に保つ
 - 特定の最終用途 追加的な関連情報は得られていません。

8 暴露防止及び保護措置

- ・ 技術設備の形体に関する追加注意事項: その他の申し立てなし、7 項参照
- ・ 管理パラメーター
- ・ 作業場において限界値の監視を要する成分:
 - このプロダクトは作業場において監視する必要のある限界値を持つ成分は含まれていない
- ・ 追加注意事項: 生成時に有効なリストがもともになっている
- ・ 暴露管理
- ・ 人的保護装備:
 - 一般防止措置および衛生措置:
 - 食物、飲み物、飼料からは遠ざける
 - 汚れのしみ込んだ衣類は即刻脱ぐ
 - 休憩の前、作業終了後には手を洗う
 - 眼に入らないように
 - 眼に入らないよう、また皮膚に接触しないよう注意する
- ・ 呼吸保護器具: 必要ない
- ・ 手の保護:



保護手袋

手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあつてはならない
テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるもの
はない

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浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する

手袋材

適当な手袋は材質だけではなく、その他の品質によっても変わり、各メーカーによって異なる。調合する際の物質は複数の成分から生成されるため、手袋材の耐久性は予想できない。このため使用前には必ずチェックしなければならない

・手袋材の浸透時間 正確な浸透時間については保護手袋メーカーに問い合わせ、それを遵守すること

・眼の保護:



密閉式保護めがね

9 物理的及び化学的性質

基本的な物理及び化学特性に関する情報

一般指示事項

外観

形:	粉末
色:	白
におい:	弱い、特性
嗅覚閾値	決まっていない。

・pH-値: 情報なし

状態の変化

融点/融解範囲:	決まっていない
沸点/沸点範囲:	決まっていない

・引火点: 情報なし

・発火性(個体、気体): 火災の原因となる場合あり

・分解温度: 決まっていない。

・自然発火性: プロダクトは自然発火しない

・爆発の危険: プロダクトは爆発する危険はない

爆発限界:

下限:	決まっていない。
上限:	決まっていない。

・蒸気圧 約 20 °C: 1 hPa

・密度 約 20 °C:	1.23 g/cm ³
・相対的密度	決まっていない。
・蒸気密度	情報なし
・気化速度	情報なし

以下成分における消和性/との混和性

水: 不溶性

・分配係数 (n-オクタノール/水): 決まっていない。

粘性:

力学的:	情報なし
運動性:	情報なし

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・ 溶剤含有量:

・ 固形物含有量: 100.0 %
 ・ 他の情報 追加的な関連情報は得られていません。

10 安定性及び反応性

- ・ 反応性 追加的な関連情報は得られていません。
- ・ 化学的安定性
- ・ 熱分解/回避すべき条件: 規定どおりの使用では分解しない
- ・ 危険反応の可能性 危険な反応は起きていない
- ・ 避けるべき条件 追加的な関連情報は得られていません。
- ・ 不適合物質: 追加的な関連情報は得られていません。
- ・ 危険な分解生成物: 危険な分解プロダクトはない

11 有害性情報

- ・ 毒性学的影響に関する情報
- ・ 急性毒性:
- ・ 初期刺激作用:
- ・ 皮膚において: 刺激作用はない
- ・ 眼において: 刺激作用
- ・ 感作作用: 皮膚接触によって感作作用の可能性あり
- ・ 毒性に関する補足注意事項:
 調査に関する EU の最新の一般分類ガイドラインの計算によれば、プロダクトでは以下の危険が見込まれる
 刺激的
- ・ 次の種類の潜在的な効果に対する情報
- ・ CMR-作用 (癌誘発、因子変異、そして進化危険作用)
 生殖毒性 区分1B

12 環境影響情報

- ・ 毒性
- ・ 水生生物に対する毒性: 追加的な関連情報は得られていません。
- ・ 持続性及び分解性 追加的な関連情報は得られていません。
- ・ 環境システムにおける作用:
- ・ 生体内蓄積能 追加的な関連情報は得られていません。
- ・ 土壌内移動性 追加的な関連情報は得られていません。
- ・ その他のエコロジーに関する注意事項:
- ・ 一般注意事項:
 水への危険度分類 1 (ドイツの規定) (自己査定): 水に対する危険性はわずかにある
 薄めずに、あるいは大量に地下水、河川もしくは下水施設に流してはならない
- ・ PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント
- ・ PBT (残留性、生物濃縮性、毒性物質): 情報なし
- ・ vPvB (高残留性、高生物濃縮性物質): 情報なし
- ・ 他の副作用 追加的な関連情報は得られていません。

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13 廃棄上の注意

- ・ 廃棄物処理方法
- ・ 勧告: 家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない
- ・ 洗浄されていないパッケージ:
- ・ 勧告: 関係当局の規則に従って処分する

14 輸送上の注意

・ UN 番号	
・ ADR, IMDG, IATA	UN3106
・ 国連出荷正式名	
・ ADR	3106 ORGANIC PEROXIDE TYPE D, SOLID
・ IMDG, IATA	ORGANIC PEROXIDE TYPE D, SOLID
・ 輸送の危険性クラス	
・ ADR	
	
・ 分類	5.2 有機過酸化物
・ 危険物ラベル	5.2+1
・ IMDG	
	
・ Class	5.2 有機過酸化物
・ Label	5.2/1
・ IATA	
	
・ Class	5.2 有機過酸化物
・ Label	5.2 (1)
・ パッケージの分類	
・ ADR, IATA	無効
・ IMDG	II
・ 環境危険:	情報なし
・ ユーザー用特別予防措置	警告: 有機過酸化物
・ ケムラー符号:	-
・ EMS (電子メールサービスナンバー) 番号:	F-J,S-R
・ Stowage Category	D
・ Stowage Code	SW1 Protected from sources of heat.

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・ Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
・ マルポール条約 (MARPOL73/78) 付属書II及びIBCコードに準じたバルク輸送	情報なし
・ 輸送/その他の説明:	
・ ADR	
・ Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
・ UN "模範規制:	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

15 適用法令

・ 該当純物質または混合物に対する安全、衛生及び環境規制・法律
・ 化審法

・ 既存化学物質	
94-36-0	dibenzoyl peroxide 3-1349
84-61-7	フタル酸ジシクロヘキシル 3-1311
・ 特定化学物質 内容成分はリストアップされていない	
・ 監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質 内容成分はリストアップされていない	
・ 優先評価化学物質 内容成分はリストアップされていない	
・ 白物質 内容成分はリストアップされていない	
・ 既存化学物質安全性点検結果 (分解性・蓄積性) 全ての内容成分はリストアップされている	
・ 既存化学物質安全性点検結果 (毒性) 内容成分はリストアップされていない	
・ PRTR Class 1 designated substances PRTR 制度 - 第一種指定化学物質 内容成分はリストアップされていない	
・ PRTR Class 2 designated substances PRTR 制度 - 第二種指定化学物質	
84-61-7	フタル酸ジシクロヘキシル 78
・ Poisonous and Deleterious Substances Control Act - Deleterious Substances 毒物及び劇物取締法 - 劇物 内容成分はリストアップされていない	
・ Poisonous and Deleterious Substances Control Act - Poisonous Substances 毒物及び劇物取締法 - 毒物 内容成分はリストアップされていない	
・ Poisonous and Deleterious Substances Control Act - Specified Poisonous Substances 毒物及び劇物取締法 - 特定毒物 内容成分はリストアップされていない	

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- ・労働安全衛生法

- ・危険物

- ・爆発性の物 (施行令別表第 1 第 1 号)

94-36-0 | dibenzoyl peroxide

- ・発火性の物 (施行令別表第 1 第 2 号)

内容成分はリストアップされていない

- ・酸化性の物 (施行令別表第 1 第 3 号)

内容成分はリストアップされていない

- ・引火性の物 (施行令別表第 1 第 4 号)

内容成分はリストアップされていない

- ・可燃性のガス (施行令別表第 1 第 5 号)

内容成分はリストアップされていない

- ・特定化学物質等

- ・第一類物質

内容成分はリストアップされていない

- ・第二類物質

内容成分はリストアップされていない

- ・第三類物質

内容成分はリストアップされていない

- ・名称等を通知すべき有害物 (別表第 9)

94-36-0 | dibenzoyl peroxide

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- ・製造許可物質

内容成分はリストアップされていない

- ・鉛中毒予防規則 (施行令別表第 4)

内容成分はリストアップされていない

- ・四アルキル鉛中毒予防規則 (施行令別表第 5)

内容成分はリストアップされていない

- ・有機溶剤中毒予防規則第 (施行令別表第 6 の 2)

- ・第一種有機溶剤等

内容成分はリストアップされていない

- ・第二種有機溶剤等

内容成分はリストアップされていない

- ・第三種有機溶剤等

内容成分はリストアップされていない

- ・強い変異原性が認められた化学物質

内容成分はリストアップされていない

- ・GHS ラベル要素

本製品はGHS(化学品の分類および表示に関する世界調和システム)により分類及び表示されています。

- ・危険図表



GHS02

GHS07

GHS08

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・表示語 危険

・危険と定められた成分をラベル表示:

フタル酸ジシクロヘキシル

dibenzoyl peroxide

・危険文句

熱すると火災のおそれ

強い眼刺激

アレルギー性皮膚反応を起こすおそれ

生殖能又は胎児への悪影響のおそれ

・注意文句

熱/火花/裸火/高温のもののような着火源から遠ざけること。 - 禁煙。

眼に入った場合: 水で数分間注意深く洗うこと。次にコンタクトレンズを着用していて容易に外せる場合は外すこと。その後も洗浄を続けること。

施錠して保管すること。

日光から遮断すること。

20 °C 以下の温度で保管すること。涼しいところに置くこと。

現地/地域/国/国際規定に従い内容物・容器の露出

・化学物質の安全性評価: 化学物質安全性評価が遂行されていない

16 その他の情報

この情報は現在の我々の認識に基づいている。ただし、プロダクトの特性を保証するものではなく、また契約において法的根拠にはならない

・縮約と二文字語:

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

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PRTR/化管法: 化学物質排出把握管理促進法

有機過酸化物 タイプB: Organic peroxides – Type B

有機過酸化物 タイプD: Organic peroxides – Type C/D

重篤な眼の損傷性/眼刺激性 区分2A: Serious eye damage/eye irritation – Category 2A

感作性(皮膚) 区分1: Skin sensitisation – Category 1

生殖毒性 区分1B: Reproductive toxicity – Category 1B

물질안전보건자료 GHS에 따라

기압점: 2018.09.13

개정: 2018.09.13

1 화학제품과 회사에 관한 정보

- **제품 식별자**
- **제품명: TECHNOVIT 8100 HARDENER 1**
- **상품번호: 14654(H1)**
- **해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도** 추가적인 정보가 존재하지 않습니다.
- **제품의 권고 용도와 사용상의 제한: 실험실 화학품**
- **안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보**
- **제조사/수입자/유통업자 정보:**
 Electron Microscopy Sciences
 1560 Industry Road
 USA-Hatfield, PA 19440
 Tel: 215-412-8400 Fax: 215-412-8450
 email: sgkcck@aol.com
 www.emsdiasum.com

 Samchang Commercial Co., Ltd.
 Yeo Eui Do
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 Seoul, Korea
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 Fax: 82 2 717 3298

 Daedok Science, Co. Ltd.
 34141 E10 Korea Advanced Institute of Science
 Guseong-Dong, Yuseong-gu, Daejeon,
 Korea
 Phone: 82 42 710 2091
 Fax: 82 42 367 0005
 Website: www.labsmro.com
- **추가적인 정보 획득 가능: Product safety department**
- **비상연락 전화번호:**
 ChemTrec 1-800-424-9300 Contract CCN7661
 1-703-527-3887

2 유해성·위험성

· **순물질 또는 혼합물의 분류**



화염

유기과산화물 – 형식 D

H242 가열하면 화재를 일으킬 수 있음



건강에 위험

생식독성 – 구분 1B

H360 태아 또는 생식능력에 손상을 일으킬 수 있음



심한 눈 손상성/눈 자극성 – 구분 2 H319 눈에 심한 자극을 일으킴

피부 과민성 – 구분 1

H317 알레르기성 피부 반응을 일으킬 수 있음

(2 쪽에 계속)

물질안전보건자료

GHS에 따라

기압점: 2018.09.13

개정: 2018.09.13

제품명: TECHNOVIT 8100 HARDENER 1

(1 쪽부터계속)

- 라벨표기 요소
- GHS 라벨 요소
- 그림문자



GHS02 GHS07 GHS08

- 신호어 위험
- **상표상에명확히위험성이표시된성분:**

dicyclohexyl phthalate
과산화 벤조일

- **유해.위험 문구**
가열하면 화재를 일으킬 수 있음
눈에 심한 자극을 일으킴
알레르기성 피부 반응을 일으킬 수 있음
태아 또는 생식능력에 손상을 일으킬 수 있음

- **예방조치 문구**
열, 스파크, 화염, 고열로부터 멀리하십시오 - 금연
눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.
잠금장치가 있는 저장장소에 저장하십시오.
직사광선을 피하십시오.
반응성이 높은 물질이므로 보관 시 20°C를 넘지 않도록 유의하십시오. 저온으로 유지하십시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

- **기타 유해성**
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

3 구성성분의 명칭 및 함유량

- **화학적 특성:** 혼합물
- **설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험 요소:**

94-36-0	과산화 벤조일 유기과산화물 - 형식 B, H241; 심한 눈 손상성/눈 자극성 - 구분 2, H319; 피부 과민성 - 구분 1, H317	>25-≤50%
84-61-7	dicyclohexyl phthalate 생식독성 - 구분 1B, H360; 피부 과민성 - 구분 1, H317	>25-≤50%

4 응급조치 요령

- **응급조치요령 내용**
- **흡입했을 때:**
신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.
- **눈에 들어갔을 때:** 흐르는 물에 눈을 몇분동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다

(3 쪽에계속)

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- **먹었을 때:** 증상이 지속될 경우에는 의사와 상담 한다.
- **기타 의사의 주의사항:**
- **가장 중요한 급·만성 증상 및 영향** 추가적인 정보가 존재하지 않습니다.
- **즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후** 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- **소화제**
- **적절한 소화제:** 주변 환경에 맞는 화재 진화방법을 사용한다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소방관에 대한 권고사항**
- **화재 진압 시 착용할 보호구 및 예방조치:** 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- **개인적 예방조치, 보호장비 및 응급처치 절차** 필요없음.
- **환경 관련 예방조치:** 하수도망/해수면위의물/지하수로도달하지않게한다.
- **밀폐 및 정화 방법과 소재:** 기계를 사용해서 집어 올린다.
- **타 섹션 참조**
안전 관리에 대한 정보는 제7 장 을 참고하시오.
개인 보호 장비에 대한 정보는 제8 장 을 참고하시오.
쓰레기 처리에 대한 정보는 제13 장 을 참고하시오.

7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치** 올바르게 사용할 경우에는 특별한 주의가 필요없다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 특별한 조치가 필요없음.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요없음
- **보관 조건에 관한 추가적인 정보:** 용기를 새지않게밀폐한채보관한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시오.
- **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

94-36-0 과산화 벤조일

TLV (KR)	장기간의값: 5 mg/m ³
PEL (US)	장기간의값: 5 mg/m ³
REL (US)	장기간의값: 5 mg/m ³
TLV (US)	장기간의값: 5 mg/m ³

- **추 가 정보:** 제 조 할 당시에 유효 한 목록을 기초로 사용했다.

(4 쪽에계속)

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- **노출 통제**
- **개인 보호구**
- **일반적보호조치및위생조치:**
 식료품, 음료수와 사료로부터 멀리떨어뜨려 놓는다.
 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
 휴식전이나 작업이 끝날때마다 손을 씻는다.
 눈과의 접촉을 피한다.
 눈과 피부와의 접촉은 피한다.
- **호흡기 보호:** 필요없음.
- **손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.
 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

- **장갑의재료**
 적합한장갑의선택은재질차이뿐만아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다
 르게선택되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사
 전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.
- **장갑재료의 투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.
- **눈 보호:**



확조이는보안경

9 물리화학적 특성

· **기본 물리 및 화학적 특성에 대한 정보**

- 일반정보
- 외형

· **물리적 상태:** 가루
 · **색:** 하얀
 · **냄새:** 약한, 특색있는
 · **후각역치** 알맞지않다.

· **pH:** 해당사항 없음.

· **상태변화**

· **녹는점/어는점:** 맞지않는
 · **초기 끓는점과 끓는점 범위:** 맞지않는

· **인화점:** 해당사항 없음.

· **인화성(고체, 기체):** 화제를야기시킬수있는가

· **분해 온도:** 알맞지않다.

· **자기점화:** 이제품은자연발화성이없다.

· **폭발위험:** 이제품은폭발위험성이없다

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· 인화 또는 폭발 범위의 상한/하한 아래로: 위로:	알맞지않다. 알맞지않다.
· 증기압 의경우 20 °C:	1 hPa
· 밀도 의경우 20 °C: · 비중: · 증기밀도: · 증발 속도:	1.23 g/cm ³ 알맞지않다. 해당사항 없음. 해당사항 없음.
· 용해도: 물:	불용해성의
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도: 역학성: 동점성:	해당사항 없음. 해당사항 없음.
· 용매내용물 VOC (EU)	0.00 %
· 고체의 함량: · 기타 정보	100.0 % 추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:
- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 무자극
- 심한 눈 손상 또는 자극성: 자극
- 감각화: 피부접촉을통하여감각화가가능성이있다.
- 추가적인 독성에 관한 정보:
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전 준비에대하여제시하고있다.
자극적인
- 다음 종류의 잠재적인 효과에 대한 정보
- CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)
생식독성 - 구분 1B

KR

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12 환경에 미치는 영향

- **독성**
- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보:**
- **일반 특징:**
수질오염등급 1 (자체등급분류): 약하게수질오염이된
희석시키지않은채대량으로지하수나, 하천으로그리고하수도망에도달하지않게한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.
- **기타 부작용** 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- **폐기물 처리 방법**
- **권고:** 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- **비위생적 포장:**
- **권고:** 당국의지침에입각한쓰레기처리.

14 운송에 필요한 정보

<ul style="list-style-type: none"> · 유엔 번호 · ADR, IMDG, IATA 	UN3106
<ul style="list-style-type: none"> · UN 적정 선적명 · ADR · IMDG, IATA 	3106 ORGANIC PEROXIDE TYPE D, SOLID ORGANIC PEROXIDE TYPE D, SOLID
<ul style="list-style-type: none"> · 교통 위험 클래스 · ADR 	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> · 등급 · 위험물 라벨 	5.2 유기과산화물 5.2+1
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; justify-content: space-around; align-items: center;">   </div>
<ul style="list-style-type: none"> · Class 	5.2 유기과산화물

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<ul style="list-style-type: none"> · Label 	5.2/1
<ul style="list-style-type: none"> · IATA 	
	
<ul style="list-style-type: none"> · Class · Label 	5.2 유기과산화물 5.2 (1)
<ul style="list-style-type: none"> · 용기등급 · ADR, IATA · IMDG 	누락되다 II
<ul style="list-style-type: none"> · 환경적 유해물질: 	해당사항 없음.
<ul style="list-style-type: none"> · 이용자 특별 예방조치 · 위험 코드: · EMS-번호: · Stowage Category · Stowage Code · Segregation Code 	경고: 유기과산화물 - F-J,S-R D SW1 Protected from sources of heat. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
<ul style="list-style-type: none"> · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송 	해당사항 없음.
<ul style="list-style-type: none"> · 운 송/추가 정보: 	
<ul style="list-style-type: none"> · ADR · 한정 수량 (LQ) · Excepted quantities (EQ) 	500 g Code: E0 Not permitted as Excepted Quantity
<ul style="list-style-type: none"> · 운송 구분 · 터널 제한 코드 	2 D
<ul style="list-style-type: none"> · UN "모범 규제": 	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

15 법적 규제현황

<ul style="list-style-type: none"> · 산업안전보건법에 의한 규제: 		
<ul style="list-style-type: none"> · 제조 등 금지물질: 	어떠한내용물도목록화되어있지않다	
<ul style="list-style-type: none"> · 허가대상물질: 	어떠한내용물도목록화되어있지않다	
<ul style="list-style-type: none"> · 관리대상유해물질: 	어떠한내용물도목록화되어있지않다	
<ul style="list-style-type: none"> · 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 		
<ul style="list-style-type: none"> · Korean Existing Chemical Inventory 		
94-36-0	과산화 벤조일	KE-09889
84-61-7	dicyclohexyl phthalate	KE-02215

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(7 쪽부터계속)

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

94-36-0 과산화 벤조일

· 허가물질

94-36-0 과산화 벤조일

· GHS 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS02 GHS07 GHS08

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

dicyclohexyl phthalate

과산화 벤조일

· 유해.위험 문구

가열하면 화재를 일으킬 수 있음

눈에 심한 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

태아 또는 생식능력에 손상을 일으킬 수 있음

· 예방조치 문구

열·스파크·화염·고열로부터 멀리하십시오 - 금연

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하십시오. 계속 씻으시오.

잠금장치가 있는 저장장소에 저장하십시오.

직사광선을 피하십시오.

반응성이 높은 물질이므로 보관 시 20°C를 넘지 않도록유의하십시오. 저온으로 유지하십시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은 기술하지않았으며계약적인법률관계에기반을두고있지도않다

· 최초 작성일자: 2018.09.13

· 개정 횟수 및 최종 개정일자: 1 / 2018.09.13

· 약어와 두문자어:

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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

(9 쪽에계속)

물질안전보건자료

GHS에 따라

기압점: 2018.09.13

개정: 2018.09.13

제품명: TECHNOVIT 8100 HARDENER 1

CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

(8 쪽부터계속)

KR

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.09.13

在 2018.09.13 審核

1 化學品及企業標識

- 產品識別者
- 化學品中文(英文)名稱, 化學品俗名或商品名: **TECHNOVIT 8100 HARDENER 1**
- 商品編號: 14654(H1)
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 原材料的應用/準備工作進行 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危險性概述

· 緊急情況概述:

白色, 粉末, 遇熱可能起火。造成嚴重眼睛刺激。可能造成皮膚過敏。可能對生育能力或對胎兒造成傷害。

· GHS危險性類別



火焰

有機過氧化物 D型

H242 遇熱可能起火



健康危險

生殖毒性物質 第1B級

H360 可能對生育能力或對胎兒造成傷害



嚴重損傷/刺激眼睛物質 第2A級 H319 造成嚴重眼睛刺激

皮膚過敏物質 第1級 H317 可能造成皮膚過敏

· 標籤因素

- GHS標籤元素 本產品根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 圖示



GHS02



GHS07



GHS08

- 名稱 危險

(在 2 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.09.13

在 2018.09.13 審核

化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 1 頁繼續)

· 標籤上辨別危險的成份:

1,2-苯二甲酸1,2-二環己基酯
過氧化二苯甲醯 [糊狀物, 52% < 含量 ≤ 62%]

· 危險字句

遇熱可能起火
造成嚴重眼睛刺激
可能造成皮膚過敏
可能對生育能力或對胎兒造成傷害

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。

· 事故響應

如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。

· 安全貯存

加鎖存放。
避免日曬。
貯存溫度不超過 20 °C。保持低溫。

· 廢棄處置

按照地方/區域/國家/國際法規處理內容物之廢棄/容器。

· 其他有害性

· PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果

· PBT(殘留性、生物濃縮性、毒性物質) 不適用的

· vPvB(高殘留性、高生物濃縮性物質): 不適用的

3 成分/組成資訊

· 混合物

· 描述: 由以下含有無害添加劑的成分組成的混合物

· 危險的成分:

94-36-0	過氧化二苯甲醯 [糊狀物, 52% < 含量 ≤ 62%] ⚠️ 有機過氧化物 B型, H241; ⚠️ 嚴重損傷/刺激眼睛物質 第2A級, H319; 皮膚過敏物質 第1級, H317	>25-≤50%
84-61-7	1,2-苯二甲酸1,2-二環己基酯 ⚠️ 生殖毒性物質 第1B級, H360; ⚠️ 皮膚過敏物質 第1級, H317	>25-≤50%

4 急救措施

· 應急措施要領

· 吸入:

供給新鮮空氣並且確保會叫醫生。
萬一病人不清醒時, 請讓病人側躺以便移動。

· 皮膚接觸: 馬上用水和肥皂進行徹底的沖洗。

· 眼睛接觸: 張開眼睛在流水下沖洗數分鐘。如果症狀仍然持續, 請諮詢醫生。

· 食入: 如果症狀仍然持續, 請諮詢醫生。

· 給醫生的資料:

· 最重要的急慢性症狀及其影響 無相關詳細資料。

· 需要及時的醫療處理及特別處理的症狀 無相關詳細資料。

-TW

(在 3 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.09.13

在 2018.09.13 審核

化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 2 頁繼續)

5 消防措施

- **滅火方法**
- **滅火的方法和滅火劑:** 使用適合四周環境的滅火措施.
- **特別危險性** 無相關詳細資料。
- **特殊滅火方法**
- **消防人員特殊的防護裝備:** 沒有要求特別的措施.

6 洩漏應急處理

- **保護措施** 沒有要求.
- **環境保護措施:** 切勿讓其進入下水道/水面或地下水.
- **密封及淨化方法和材料:** 使用機械提起.
- **參照其他部分**
有關安全處理的資料請參閱第 7 節.
有關個人保護裝備的資料請參閱第 8 節.
有關棄置的資料請參閱第 13 節.

7 操作處置與儲存

- **操作處置**
- **儲存** 如果正確使用便不需特別的預防措施.
- **有關火災及防止爆炸的資料:** 不需特別的措施.
- **混合危險性等安全儲存條件**
- **儲存:**
- **儲存庫和容器須要達到的要求:** 沒有特別的要求.
- **有關使用一個普通的儲存設施來儲存的資料:** 不需要.
- **有關儲存條件的更多資料:** 將容器密封.
- **具體的最終用戶** 無相關詳細資料.

8 接觸控制和個體防護

- **工程控制方法:** 沒有進一步數據;見第 7 項.
- **控制變數**

· 在工作場需要監控的限值成分

94-36-0 過氧化二苯甲醌 [糊狀物, 52% < 含量 ≤ 62%]

PEL (TW) PC-TWA: 5 mg/m³OEL (CN) PC-TWA: 5 mg/m³

- **額外的資料:** 制作期間有效的清單將作為基礎來使用.
- **遺漏控制**
- **個人防護設備:**
- **一般保護和衛生措施:**
遠離食品、飲料和飼料.
立即除去所有的不潔的和被污染的衣服.
在休息之前和工作完畢後請清洗雙手.
避免和眼睛接觸.
避免和眼睛及皮膚接觸.
- **呼吸系統防護:** 不需要.

(在 4 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

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在 2018.09.13 審核

化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 3 頁繼續)

· 手防護:



保護手套

手套的物料必須是不滲透性的, 且能抵抗該產品/物質/添加劑。
基於缺乏測試, 對於產品/制劑/化學混合物, 並不會提供手套材料的建議
選擇手套材料時, 請注意材料的滲透時間, 滲濾率和降解參數

· 手套材料

選擇合適的手套不單取決於材料, 亦取決於質量特征, 以及來自哪一間生產廠家, 因為該產品是由很多材料
配制而成, 手套材料的抵抗力並不可預計, 所以, 必須在使用之前進行檢查

· 滲入手套材料的時間 請向勞保手套生產廠家獲取準確的破裂時間並觀察實際的破裂時間

· 眼睛防護:



密封的護目鏡

9 理化特性

· 有關基本物理及化學特性的資訊

· 一般說明

· 外觀:

· 形狀: 粉末

· 顏色: 白色

· 氣味: 弱的、有特性的

· 嗅覺閾限 未決定.

· pH值: 不適用的

· 條件的更改

· 熔點: 未確定的

· 沸點/初沸點和沸程: 未確定的

· 閃點: 不適用的

· 可燃性(固體、氣體): 可能引起火災.

· 分解溫度: 未決定.

· 自燃溫度: 該產品是不自燃的

· 爆炸的危險性: 該產品並沒有爆炸的危險

· 爆炸極限:

· 較低: 未決定.

· 較高: 未決定.

· 蒸氣壓 在 20 °C: 1 hPa

· 密度 在 20 °C: 1.23 g/cm³

· 相對密度 未決定.

· 蒸氣密度 不適用的

· 蒸發速率 不適用的

(在 5 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.09.13

在 2018.09.13 審核

化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 4 頁繼續)

- | | |
|---------------|----------|
| · 溶解性 | |
| 水: | 不能溶解的 |
| · n-辛醇/水分配係數: | 未決定. |
| · 黏性: | |
| 動態: | 不適用的 |
| 運動學的: | 不適用的 |
| · 溶劑成份: | |
| 固體成份: | 100.0 % |
| · 其他資訊 | 無相關詳細資料。 |

10 穩定性和反應性

- 反應性 無相關詳細資料。
- 穩定性
- 熱分解/要避免的情況: 如果遵照規格使用則不會分解。
- 有害反應可能性 未有已知的危險反應。
- 應避免的條件 無相關詳細資料。
- 不相容的物質: 無相關詳細資料。
- 危險的分解產物: 未知有危險的分解產品。

11 毒理學資訊

- 對毒性學影響的資訊
- 急性毒性:
- 主要的刺激性影響:
- 皮膚: 沒有刺激性影響。
- 在眼睛上面: 刺激的影響。
- 致敏作用: 通過皮膚接觸可能造成敏化作用。
- 更多毒物的資料:
根據有關配制的歐盟分類指南的計算方法 (刊印在最新版本), 該產品顯示以下的危險:
刺激性的
- 對以下組別可能產生影響的資料:
- CMR作用 (致癌、導致基因突變、對生殖系統有害)
生殖毒性物質 第1B級

12 生態學資訊

- 生態毒性
- 水生毒性: 無相關詳細資料。
- 持久性和降解性 無相關詳細資料。
- 環境系統習性:
- 潛在的生物累積性 無相關詳細資料。
- 土壤內移動性 無相關詳細資料。
- 額外的生態學資料:
- 總括注解:
水危害級別 1(德國規例) (通過名單進行自我評估): 對水是稍微危害的
不要讓未稀釋或大量的產品接觸地下水、水道或者汗水系統。

(在 6 頁繼續)

物質安全資料表

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化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 5 頁繼續)

- PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質)評價結果
- PBT(殘留性、生物濃縮性、毒性物質) 不適用的
- vPvB(高殘留性、高生物濃縮性物質): 不適用的
- 其他副作用 無相關詳細資料。

13 廢棄處置

- 廢棄處置方法
- 建議: 不能將該產品和家居垃圾一起丟棄. 不要讓該產品接觸污水系統.
- 受污染的容器和包裝:
- 建議: 必須根據官方的規章來丟棄.

14 運輸資訊

- 聯合國危險貨物編號(UN號)

· ADR, IMDG, IATA UN3106

- UN適當裝船名

· ADR 3106 ORGANIC PEROXIDE TYPE D, SOLID
· IMDG, IATA ORGANIC PEROXIDE TYPE D, SOLID

- 運輸危險等級

- ADR



- 級別

5.2 有機 過氧化 物

- 標籤

5.2+1

- IMDG



- Class

5.2 有機 過氧化 物

- Label

5.2/1

- IATA



- Class

5.2 有機 過氧化 物

- Label

5.2 (1)

- 包裝組別

- ADR, IATA

無效

- IMDG

II

- 危害環境:

不適用的

(在 7 頁繼續)

物質安全資料表

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化學品中文(英文)名稱, 化學品俗名或商品名: TECHNIVIT 8100 HARDENER 1

(在 6 頁繼續)

· 用戶特別預防措施	警告: 有機過氧化物
· 危險編碼:	-
· EMS 號碼:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· MARPOL73/78(針對船舶引起的海洋污染預防協約) 附件書2及根據IBC Code(國際裝船貨物編碼)的大量運送	不適用的
· 運輸/額外的資料:	
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "標準規定":	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2 (1)

15 法規資訊

· 對相應純物質或者混合物的安全、保健及環境法規/法律

· 中國現有化學物質名錄

列出所有成分

· GHS標籤元素 本產品根據化學物質分類及標記全球協調制度(GHS)進行了分類及標記。

· 圖示



GHS02 GHS07 GHS08

· 名稱 危險

· 標籤上辨別危險的成份:

1,2-苯二甲酸1,2-二環己基酯
過氧化二苯甲醯 [糊狀物, 52% < 含量 ≤ 62%]

· 危險字句

遇熱可能起火
造成嚴重眼睛刺激
可能造成皮膚過敏
可能對生育能力或對胎兒造成傷害

· 警戒字句

· 預防措施

遠離熱源/火花/明火/熱表面。 - 禁止抽菸。

· 事故響應

如進入眼睛: 用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出, 取出隱形眼鏡。繼續清洗。

· 安全貯存

加鎖存放。
避免日曬。
貯存溫度不超過 20 °C。保持低溫。

(在 8 頁繼續)

物質安全資料表

根據 GB/T 16483-2008, GB/T 17519-2013

打印日期 2018.09.13

在 2018.09.13 審核

化學品中文(英文)名稱, 化學品俗名或商品名 : TECHNIVIT 8100 HARDENER 1

(在 7 頁繼續)

- **廢棄處置**
按照地方/區域/國家/國際法規處理內容物之廢棄/容器。
- **化學物質安全性評價**: 尚未進行化學物質安全性評價

16 其他資訊

該資料是基於我們目前的知識。然而,這並不構成對任何特定產品特性的擔保並且不建立一個法律上有效的合同關係。

縮寫:

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
 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)
 PBT: 持久性生物累積性有毒物質
 vPvB: very Persistent and very Bioaccumulative
 有機過氧化物 B型: Organic peroxides – Type B
 有機過氧化物 D型: Organic peroxides – Type C/D
 嚴重損傷/刺激眼睛物質 第2A級: Serious eye damage/eye irritation – Category 2A
 皮膚過敏物質 第1級: Skin sensitisation – Category 1
 生殖毒性物質 第1B級: Reproductive toxicity – Category 1B

TW

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 13.09.2018

revidert den: 13.09.2018

Avsnitt 1: Identifikasjon av stoffet/stoffblandingen og av selskapet/foretaket

- **1.1 Produktidentifikator**
- **Handelsnavn:** TECHNOVIT 8100 HARDENER 1
- **Artikkelnummer:** 14654(H1)
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: sgkcck@aol.com
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Avsnitt 2: Fareidentifikasjon

- **2.1 Klassifisering av stoffet eller stoffblandingen**
- **Klassifisering i henhold til EC-forskrift nr.1272/2008**



GHS02 Flamme

Org. Perox. D H242 Brannfarlig ved oppvarming.



GHS08 Helsefare

Repr. 1B H360D Kan gi fosterskader.



GHS07

Eye Irrit. 2 H319 Gir alvorlig øyeirritasjon.

Skin Sens. 1 H317 Kan utløse en allergisk hudreaksjon.

- **2.2 Merkingselementer**
- **Merking iht. bestemmelse (EC) Nr. 1272/2008**
Produktet er klassifisert og merket i henhold til CLP-forordningen.
- **Farepiktogrammer**



GHS02



GHS07



GHS08

- **Varselord** Fare

(fortsatt på side 2)

NO

Sikkerhetsdatablad

iflg. forordning (EF) nr. 1907/2006, Artikkel 31

Trykkdato: 13.09.2018

revidert den: 13.09.2018

Handelsnavn: TECHNOVIT 8100 HARDENER 1

(fortsatt fra side 1)

- **Farebestemmende komponenter ved etikettering:**

dicyclohexyl phthalate

dibenzoylperoksid

- **Faresetninger**

H242 Brannfarlig ved oppvarming.

H319 Gir alvorlig øyeirritasjon.

H317 Kan utløse en allergisk hudreaksjon.

H360D Kan gi fosterskader.

- **Sikkerhetssetninger**

P210 Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningsskilder. Røyking forbudt.

P305+P351+P338 VED KONTAKT MED ØYNENE: Skyll forsiktig med vann i flere minutter. Fjern eventuelle kontaktlinser dersom dette enkelt lar seg gjøre. Fortsett skyllingen.

P405 Oppbevares innelåst.

P410 Beskyttes mot sollys.

P411+P235 Oppbevares ved en temperatur som ikke er høyere enn 20 °C. Oppbevares kjølig.

P501 Innholdet / emballasjen skal avhendes i henhold til de lokale / regionale / nasjonale / internasjonale forskrifter.

- **2.3 Andre farer**

- **Resultater av PBT- og vPvB-vurdering**

- **PBT:** Ikke brukbar.

- **vPvB:** Ikke brukbar.

Avsnitt 3: Sammensetning/opplysninger om bestanddeler

- **3.2 Kjemisk karakterisering: Stoffblandinger**

- **Beskrivelse:** Blanding av nedenstående oppførte stoffer med ufarlige tilsetninger.

- **Farlige innholdsstoffer:**

CAS: 94-36-0	dibenzoylperoksid	>25-≤50%
EINECS: 202-327-6	Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	dicyclohexyl phthalate	>25-≤50%
EINECS: 201-545-9	Repr. 1B, H360D; Skin Sens. 1, H317	

- **Ytterligere informasjon:** Teksten til de fareangivelsene som er inkludert her, kan konsulteres i kapittel 16.

Avsnitt 4: Førstehjelpstiltak

- **4.1 Beskrivelse av førstehjelpstiltak**

- **Etter innånding:**

Rikelig frisklufttilførsel, søk legehjelp for sikkerhets skyld.

Ved bevisstløshet lagring og transport i stabil sidestilling.

- **Etter hudkontakt:** Vask straks med vann og sepe og skyll godt etterpå.

- **Etter øyekontakt:**

Skyll øynene med åpne øyenlokk i flere minutter under rennende vann. Ved fortsatt besvær tilkall lege.

- **Etter svelging:** Ved fortsatt besvær må lege konsulteres.

- **4.2 De viktigste symptomene og virkningene, både akutte og forsinkede**

Ikke noe mer relevant informasjon tilgjengelig.

- **4.3 Angivelse av om umiddelbar legehjelp og spesialbehandling er nødvendig**

Ikke noe mer relevant informasjon tilgjengelig.

NO

(fortsatt på side 3)

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Avsnitt 5: Brannsløkkingstiltak

- **5.1 Sløkkingsmidler**
- **Egnede slukningsmidler:** Brannslukningstiltak tilpasses omgivelsene.
- **5.2 Særlige farer knyttet til stoffet eller stoffblandingen** Ikke noe mer relevant informasjon tilgjengelig.
- **5.3 Råd til brannmannskaper**
- **Spesielt verneutstyr:** Ingen spesielle tiltak nødvendig.

Avsnitt 6: Tiltak ved utilsiktede utslipp

- **6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner** Ikke nødvendig.
- **6.2 Forsiktighetsregler med hensyn til miljø** La ikke produktet komme ned i kloakk/overflatevann/grunnvann.
- **6.3 Metoder og materialer for oppsamling og rensing** Ta opp mekanisk.
- **6.4 Henvisning til andre avsnitt**
Informasjoner om sikker håndtering, se kapittel 7.
Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.
Informasjoner om bortskaffelse/deponering, se kapittel 13.

Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering** Ved sakkyndig bruk er spesielle tiltak unødvendig.
- **Henvisninger om brann- og eksplosjonsvern:** Ingen særlige tiltak nødvendig.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:** Hold beholderne tett tillukket.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

- **Ytterligere informasjoner om utforming av tekniske anlegg:** Ingen ytterligere informasjoner, se punkt 7.

· 8.1 Kontrollparametere

- **Komponenter med grenseverdier for arbeidsplass som må overholdes:**

94-36-0 dibenzoylperoksid	
AG	Langtidsverdi: 5 mg/m ³
A	

- **Ytterligere informasjoner:** Basis: listene som var gyldige ved oppstillingen.

· 8.2 Eksponeringskontroll

· Personlig verneutstyr:

· Generelle verne- og hygienetiltak:

Holdes adskilt fra næringsmidler, drikkevarer og fôrstoffer.

Fjern omgående forurensede, gjennomvåtede klær.

Vask hendene før arbeidspauser og ved arbeidets slutt.

Unngå berøring med øynene.

Unngå berøring med øyne og hud.

- **Åndedrettsvern:** Ikke nødvendig.

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· **Håndvern:**

Beskyttelseshansker

Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.

På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet /tilberedningsprosessen/kjemikalieblanding.

Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.

· **hanskemateriale**

Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenner og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsberegnes, og denne må testes før bruk.

· **gjennomtrengingstid for hanskemateriale**

Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.

· **Øyevern:**

Tettsittende vernebrille

Avsnitt 9: Fysiske og kjemiske egenskaper

· **9.1 Opplysninger om grunnleggende fysiske og kjemiske egenskaper**· **alminnelige opplysninger**· **Utseende:**

· Form:	Pulver
· Farge:	Hvit
· Lukt:	Svak, karakteristisk
· Lukterskel:	Ikke bestemt.

· **pH-verdi:** Ikke brukbar.

· **Tilstandsendring**

· Smeltepunkt/frysepunkt:	Ikke bestemt.
· Startkokepunkt og kokeområde:	Ikke bestemt.

· **Flammepunkt:** Ikke brukbar.

· **Antennelighet (fast stoff, gass):** Kan forårsake brann

· **Nedbrytingstemperatur:** Ikke bestemt.

· **Selvantennelsestemperatur:** Produktet er ikke selvantennelig.

· **Eksplorative egenskaper:** Produktet er ikke eksplosjonsfarlig.

· **Eksplisjonsgrenser:**

· Nedre:	Ikke bestemt.
· Øvre	Ikke bestemt.

· **Damptrykk ved 20 °C:** 1 hPa

· **Tetthet ved 20 °C:** 1,23 g/cm³

· **Relativ tetthet:** Ikke bestemt.

· **Damptetthet:** Ikke brukbar.

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· Fordampingshastighet:	Ikke brukbar.
· Løslighet i / blandbarhet med vann:	Uløslig.
· Fordelingskoeffisient; n-oktanol/vann:	Ikke bestemt.
· Viskositet:	
Dynamisk:	Ikke brukbar.
Kinematisk:	Ikke brukbar.
· Løsningsmiddelandel:	
VOC (EF)	0,00 %
Andel faste stoffer:	100,0 %
· 9.2 Andre opplysninger	Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 10: Stabilitet og reaktivitet

- **10.1 Reaktivitet** Ikke noe mer relevant informasjon tilgjengelig.
- **10.2 Kjemisk stabilitet**
- **Termisk spaltning / vilkår som må unngås:** Ingen spaltning ved formålsriktig bruk.
- **10.3 Risiko for farlige reaksjoner** Det kjennes ingen farlige reaksjoner.
- **10.4 Forhold som skal unngås** Ikke noe mer relevant informasjon tilgjengelig.
- **10.5 Uforenlige materialer** Ikke noe mer relevant informasjon tilgjengelig.
- **10.6 Farlige nedbrytingsprodukter** Ingen farlige spaltningsprodukter kjente.

Avsnitt 11: Toksikologiske opplysninger

- **11.1 Opplysninger om toksikologiske virkninger**
- **Akutt giftighet** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Primær irritasjonsvirkning:**
- **Hudetsing/hudirritasjon** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Alvorlig øyeskade/øyeirritasjon**
Gir alvorlig øyeirritasjon.
- **Sensibilisering ved innånding eller hudkontakt**
Kan utløse en allergisk hudreaksjon.
- **Informasjon om følgende grupper med potensielle virkninger:**
- **CMR-virkninger (kreftfremkallende virkninger, arvestoffskadelige og reproduksjonsskadelige virkninger)**
- **Arvestoffskadelig virkning på kjønnseller** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Kreftfremkallende egenskap** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Reproduksjonstoksicitet**
Kan gi fosterskader.
- **STOT – enkelteksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **STOT – gjentatt eksponering** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.
- **Aspirasjonsfare** Basert på tilgjengelige data, klassifiseringskriteriene ikke oppfylt.

Avsnitt 12: Økologiske opplysninger

- **12.1 Giftighet**
- **Akvatisk toksisitet:** Ikke noe mer relevant informasjon tilgjengelig.
- **12.2 Persistens og nedbrytbarhet** Ikke noe mer relevant informasjon tilgjengelig.
- **12.3 Bioakkumuleringsevne** Ikke noe mer relevant informasjon tilgjengelig.

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- **12.4 Mobilitet i jord** Ikke noe mer relevant informasjon tilgjengelig.
- **Ytterligere økologiske informasjoner:**
- **Generelle informasjoner:**
Vannfareklasse 1 (D) (Selvklassifisering): lett farlig for vann
Ikke la stoffet komme ufortynnet ned i grunnvannet, i vassdrag eller i kloakker.
- **12.5 Resultater av PBT- og vPvB-vurdering**
- **PBT:** Ikke brukbar.
- **vPvB:** Ikke brukbar.
- **12.6 Andre skadevirkninger** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 13: Sluttbehandling

- **13.1 Avfallsbehandlingsmetoder**
- **Anbefaling:** Må ikke bortskaffes sammen med husholdningsavfall. Må ikke komme ned i kloakk.
- **Ikke rengjort emballasje:**
- **Anbefaling:** Deponering i henhold til myndighetenes forskrifter.

Avsnitt 14: Transportopplysninger

- | | |
|--------------------------------------|--|
| · 14.1 FN-nummer | |
| · ADR, IMDG, IATA | UN3106 |
| · 14.2 FN-forsendelsesnavn | |
| · ADR | 3106 ORGANISK PEROKSID TYPE D, I FAST FORM |
| · IMDG, IATA | ORGANIC PEROXIDE TYPE D, SOLID |
| · 14.3 Transportfareklasse(r) | |
| · ADR | |
| | |
| · klasse | 5.2 Organiske peroksider |
| · Fareseddel | 5.2+1 |
| · IMDG | |
| | |
| · Class | 5.2 Organiske peroksider |
| · Label | 5.2/1 |
| · IATA | |
| | |
| · Class | 5.2 Organiske peroksider |
| · Label | 5.2 (1) |

(fortsatt på side 7)

NO

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· 14.4 Emballasjegruppe	
· ADR, IATA	bortfaller
· IMDG	II
· 14.5 Miljøfarer	Ikke brukbar.
· 14.6 Særlige forsiktighetsregler ved bruk	Advarsel: Organiske peroksider
· Kemler-tall:	-
· EMS-nummer:	F-J,S-R
· Stowage Category	D
· Stowage Code	SW1 Protected from sources of heat.
· Segregation Code	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket	Ikke brukbar.
· Transport/ytterligere informasjon:	
· ADR	
· Begrenset mengde (LQ)	500 g
· Unntatte mengder (EQ)	Kode: E0
	Ikke tillatt som unntatte mengder
· Transportkategori	2
· Tunnel restriksjonskode	D
· UN "Model Regulation":	UN 3106 ORGANISK PEROKSID TYPE D, I FAST FORM, 5.2 (1)

Avsnitt 15: Opplysninger om regelverk

· **15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen**

· **Nasjonale forskrifter:**

· **Andre forskrifter, restriksjoner og forbudsforordninger**

· **Stoffer som gir stor grunn til bekymring iflg. REACH, artikkel 57**

84-61-7 dicyclohexyl phthalate

· **15.2 Vurdering av kjemikaliesikkerhet** En kjemisk sikkerhetsvurdering er ikke utført.

Avsnitt 16: Andre opplysninger

Opplysningene er basert på vårt kjennskap i dag. De utgjør dog ingen forsikring om produktens egenskaper og er ikke grunnlag for noe kontraktmessig rettsforhold.

· **Relevante satser**

H241 Brann- eller eksplosjonsfarlig ved oppvarming.

H317 Kan utløse en allergisk hudreaksjon.

H319 Gir alvorlig øyeirritasjon.

H360D Kan gi fosterskader.

· **Forkortelser og akronymer:**

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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Org. Perox. B: Organiske peroksider – Type B**Org. Perox. D: Organiske peroksider – Type C/D**Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2**Skin Sens. 1: Hudsensibilisering – Kategori 1**Repr. 1B: Reproduksjonstoksisitet – Kategori 1B*

NO

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 13.09.2018

Revisión: 13.09.2018

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

· **Nombre comercial:** TECHNOVIT 8100 HARDENER 1

· **Número del artículo:** 14654(H1)

· 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· 1.3 Datos del proveedor de la ficha de datos de seguridad

· **Fabricante/distribuidor:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Org. Perox. D H242 Peligro de incendio en caso de calentamiento.



GHS08 peligro para la salud

Repr. 1B H360D Puede dañar al feto.



GHS07

Eye Irrit. 2 H319 Provoca irritación ocular grave.

Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

· 2.2 Elementos de la etiqueta

· **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**

El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 13.09.2018

Revisión: 13.09.2018

Nombre comercial: **TECHNOVIT 8100 HARDENER 1**

(se continua en página 1)

· **Pictogramas de peligro**

GHS02 GHS07 GHS08

· **Palabra de advertencia Peligro**· **Componentes peligrosos a indicar en el etiquetaje:**

ftalato de dicitclohexilo

peróxido de dibenzoilo

· **Indicaciones de peligro**

H242 Peligro de incendio en caso de calentamiento.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H360D Puede dañar al feto.

· **Consejos de prudencia**

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.

P405 Guardar bajo llave.

P410 Proteger de la luz del sol.

P411+P235 Almacenar a temperaturas no superiores a 20 °C. Mantener en lugar fresco.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· **2.3 Otros peligros**· **Resultados de la valoración PBT y mPmB**· **PBT:** No aplicable.· **mPmB:** No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· **3.2 Caracterización química: Mezclas**· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.· **Componentes peligrosos:**

CAS: 94-36-0 EINECS: 202-327-6	peróxido de dibenzoilo Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	>25-≤50%
CAS: 84-61-7 EINECS: 201-545-9	ftalato de dicitclohexilo Repr. 1B, H360D; Skin Sens. 1, H317	>25-≤50%

· **SVHC**

84-61-7 ftalato de dicitclohexilo

· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**· **En caso de inhalación del producto:**

Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

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- **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.
- **En caso de con los ojos:**
Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.
- **En caso de ingestión:** Consultar un médico si los trastornos persisten.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:**
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:** Recoger mecánicamente.
- **6.4 Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
Si se manipulan correctamente, no se requieren medidas especiales.
- **Prevención de incendios y explosiones:** No se requieren medidas especiales.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
Sin datos adicionales, ver punto 7.

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· 8.1 Parámetros de control

· Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:

94-36-0 peróxido de dibenzoilo

LEP	Valor de larga duración: 5 mg/m ³
	Sen

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· 8.2 Controles de la exposición

· Equipo de protección individual:

· Medidas generales de protección e higiene:

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:** No es necesario.

· **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· Material de los guantes

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

· Tiempo de penetración del material de los guantes

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

· 9.1 Información sobre propiedades físicas y químicas básicas

· Datos generales

· Aspecto:

Forma: En polvo

Color: Blanco

· Olor: Débil, característico

· Umbral olfativo: No determinado.

· valor pH: No aplicable.

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· Cambio de estado Punto de fusión/punto de congelación:	Indeterminado.
Punto inicial de ebullición e intervalo de ebullición:	Indeterminado.
· Punto de inflamación:	No aplicable.
· Inflamabilidad (sólido, gas):	Puede provocar incendios.
· Temperatura de descomposición:	No determinado.
· Temperatura de auto-inflamación:	El producto no es autoinflamable.
· Propiedades explosivas:	El producto no es explosivo.
· Límites de explosión: Inferior:	No determinado.
Superior:	No determinado.
· Presión de vapor a 20 °C:	1 hPa
· Densidad a 20 °C:	1,23 g/cm ³
· Densidad relativa	No determinado.
· Densidad de vapor	No aplicable.
· Tasa de evaporación:	No aplicable.
· Solubilidad en / miscibilidad con agua:	Insoluble.
· Coefficiente de reparto: n-octanol/agua:	No determinado.
· Viscosidad: Dinámica:	No aplicable.
Cinemática:	No aplicable.
· Concentración del disolvente: VOC (CE)	0,00 %
· Contenido de cuerpos sólidos:	100,0 %
· 9.2 Otros datos	No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción**
Puede dañar al feto.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 1 (autoclasiificación): escasamente peligroso para el agua
En estado no diluido o no neutralizado, no dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN3106
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 3106 PERÓXIDO ORGÁNICO SÓLIDO TIPO D
- **IMDG, IATA** ORGANIC PEROXIDE TYPE D, SOLID

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· 14.3 Clase(s) de peligro para el transporte

· ADR



· Clase 5.2 Peróxidos orgánicos
· Etiqueta 5.2+1

· IMDG



· Class 5.2 Peróxidos orgánicos
· Label 5.2/1

· IATA



· Class 5.2 Peróxidos orgánicos
· Label 5.2 (1)

· 14.4 Grupo de embalaje

· ADR, IATA suprimido
· IMDG II

· 14.5 Peligros para el medio ambiente: No aplicable.

· 14.6 Precauciones particulares para los usuarios

Atención: Peróxidos orgánicos
· Número Kemler: -
· Número EMS: F-J,S-R
· Stowage Category D
· Stowage Code SW1 Protected from sources of heat.
· Segregation Code SG35 Stow "separated from" acids.
SG36 Stow "separated from" alkalis.

· 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC

No aplicable.

· Transporte/datos adicionales:

· ADR

· Cantidades limitadas (LQ) 500 g
· Cantidades exceptuadas (EQ) Código: E0
No se permite como cantidad exceptuada
· Categoría de transporte 2
· Código de restricción del túnel D

· "Reglamentación Modelo" de la UNECE:

UN 3106 PERÓXIDO ORGÁNICO SÓLIDO TIPO D, 5.2 (1)

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SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **Categoría Seveso**
P6b SUSTANCIAS Y MEZCLAS QUE REACCIONAN ESPONTÁNEAMENTE y PERÓXIDOS ORGÁNICOS
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior** 50 t
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior** 200 t
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones:** 30

- **Disposiciones nacionales:**

- **Demás disposiciones, limitaciones y decretos prohibitivos**

- **Sustancias altamente preocupantes (SVHC) según REACH, artículo 57**

84-61-7	ftalato de diciclohexilo
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- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

- **Frases relevantes**

H241 Peligro de incendio o explosión en caso de calentamiento.

H317 Puede provocar una reacción alérgica en la piel.

H319 Provoca irritación ocular grave.

H360D Puede dañar al feto.

- **Abreviaturas y acrónimos:**

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 Harmonised 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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Peróxidos orgánicos – Tipo B

Org. Perox. D: Peróxidos orgánicos – Tipo C/D

Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2

Skin Sens. 1: Sensibilización cutánea – Categoría 1

Repr. 1B: Toxicidad para la reproducción – Categoría 1B