

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/31/2015

Reviewed on 12/31/2015

## 1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 7100 - HARDENER 1
- **Article number:** 14653(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: info@emsdiasum.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**



GHS01 GHS02 Exploding bomb, Flame

Self-react. B H241 Heating may cause a fire or explosion.



GHS02 Flame

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



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging 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**



GHS01 GHS02 GHS07 GHS08

- **Signal word** Danger

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

*dibenzoyl peroxide*

· **Hazard statements**

*Heating may cause a fire or explosion.*

*Heating may cause a fire.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

· **Precautionary statements**

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

*Keep/Store away from clothing/combustible materials.*

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

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

*Keep only in original container.*

*Wash thoroughly after handling.*

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

*Obtain special instructions before use.*

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

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

*Continue rinsing.*

*Specific treatment (see on this label).*

*In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

*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.*

*IF ON SKIN: Wash with plenty of water.*

*Store locked up.*

*Protect from sunlight.*

*Store away from other materials.*

*Store in a well-ventilated place. Keep cool.*

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 1*

*Fire = 3*

*Reactivity = 3*

*The substance possesses oxidizing properties.*

· **HMIS-ratings (scale 0 - 4)**



*Health = 1*

*Fire = 3*

*Reactivity = 3*

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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Trade name: **TECHNOVIT 7100 - HARDENER 1**

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### 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	
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		25-50%
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### 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **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** Open and handle receptacle with care.

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Trade name: **TECHNOVIT 7100 - HARDENER 1**

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- **Information about protection against explosions and fires:**  
Protect from heat.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **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:**

### 94-36-0 dibenzoyl peroxide

PEL	Long-term value: 5 mg/m <sup>3</sup>
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REL	Long-term value: 5 mg/m <sup>3</sup>
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TLV	Long-term value: 5 mg/m <sup>3</sup>
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- **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.  
Store protective clothing separately.  
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:**

· <b>Form:</b>	Powder
· <b>Color:</b>	White
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.

· **pH-value:** Not applicable.· **Change in condition**

· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.

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

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapor pressure at 20 °C (68 °F):** 1 hPa (1 mm Hg)· **Density at 20 °C (68 °F):** 1.24 g/cm<sup>3</sup> (10.348 lbs/gal)· **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:**

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

· **Solvent content:**

· <b>Organic solvents:</b>	0.0 %
· <b>VOC content:</b>	0.0 g/l / 0.00 lb/gl

· **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.
- **Ecotoxicological effects:**
- **Remark:**  
Very toxic for fish  
Toxic for fish
- **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.  
Also poisonous for fish and plankton in water bodies.

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- *Very toxic for aquatic organisms*
- *Toxic for aquatic organisms*
- **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

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">UN3106</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, IATA</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> </ul> | <p style="margin-left: 20px;"><i>Organic peroxide type D, solid</i><br/>3106 <i>Organic peroxide type D, solid, ENVIRONMENTALLY HAZARDOUS</i><br/><i>ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT</i></p>                    |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>   | <div style="display: flex; align-items: center;">  </div>   |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">5.2 <i>Organic peroxides</i><br/>5.2</p>   |
| <ul style="list-style-type: none"> <li>· <b>ADR, IMDG</b></li> </ul>  | <div style="display: flex; align-items: center;">   </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">5.2 <i>Organic peroxides</i><br/>5.2</p>   |
| <ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>   | <div style="display: flex; align-items: center;">  </div>   |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="margin-left: 20px;">5.2 <i>Organic peroxides</i><br/>5.2</p>   |

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· <b>Packing group</b> · <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADR):</b>	Symbol (fish and tree) Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Stowage Category</b> · <b>Stowage Code</b> · <b>Segregation Code</b>	Warning: Organic peroxides 90 F-J,S-R D SW1 Protected from sources of heat. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, ENVIRONMENTALLY HAZARDOUS

## 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.

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

None of the ingredients is listed.

· **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**



GHS01

GHS02

GHS07

GHS08

· **Signal word** *Danger*

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

*dibenzoyl peroxide*

· **Hazard statements**

*Heating may cause a fire or explosion.*

*Heating may cause a fire.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

· **Precautionary statements**

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

*Keep/Store away from clothing/combustible materials.*

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

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

*Keep only in original container.*

*Wash thoroughly after handling.*

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

*Obtain special instructions before use.*

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

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

*Continue rinsing.*

*Specific treatment (see on this label).*

*In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

*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.*

*IF ON SKIN: Wash with plenty of water.*

*Store locked up.*

*Protect from sunlight.*

*Store away from other materials.*

*Store in a well-ventilated place. Keep cool.*

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

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· **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 preparation / last revision** 12/31/2015 / -

· **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**

**Self-react. B: Self-Reactive Substances and Mixtures, Type B**

**Org. Perox. CD: Organic Peroxides, Types C, D**

**Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A**

**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**

**Repr. 2: Reproductive toxicity, Hazard Category 2**

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

Printing date 31.12.2015

Revision: 31.12.2015

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

- **Product identifier**
- **Trade name:** TECHNOVIT 7100 - HARDENER 1
- **Article number:** 14653(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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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)
- 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](http://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 Hazards identification

- **Classification of the substance or mixture**



GHS01 GHS02 exploding bomb, flame

Self-react. B H241 Heating may cause a fire or explosion.



GHS02 flame

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



GHS08 health hazard

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

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AU

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

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GHS07

Eye Irrit. 2      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 labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS01    GHS02    GHS07    GHS08

· **Signal word** *Danger*

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

*dibenzoyl peroxide*

· **Hazard statements**

*Heating may cause a fire or explosion.*

*Heating may cause a fire.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

· **Precautionary statements**

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

*Keep/Store away from clothing/combustible materials.*

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

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

*Keep only in original container.*

*Wash thoroughly after handling.*

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

*Obtain special instructions before use.*

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

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

*Continue rinsing.*

*Specific treatment (see on this label).*

*In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

*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: CO<sub>2</sub>, powder or water spray.*

*IF ON SKIN: Wash with plenty of water.*

*Store locked up.*

*Protect from sunlight.*

*Store away from other materials.*

*Store in a well-ventilated place. Keep cool.*

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

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· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

- **Dangerous components:**

94-36-0	dibenzoyl peroxide	25-50%
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- **Additional information:** For the wording of the listed risk 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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **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.

AU

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Open and handle receptacle with care.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/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/m <sup>3</sup>
	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.  
Store protective clothing separately.  
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.

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- **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

**Colour:** White

- **Odour:** Characteristic

- **Odour 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.

- **Ignition temperature:**

**Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.  
Heating may cause an explosion.

- **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

- **Vapour pressure at 20 °C:** 1 hPa

- **Density at 20 °C:** 1.24 g/cm<sup>3</sup>

- **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.

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· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC (EC)</b>	0.00 %
· <b>Solids content:</b>	
<b>Other information</b>	100.0 % 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:**
- **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. 2

### 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.
- **Ecotoxicological effects:**
- **Remark:**  
Very toxic for fish  
Toxic for fish
- **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.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms

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- Toxic for aquatic organisms*
- **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

· <b>UN-Number</b> · <b>ADG, IMDG, IATA</b>	UN3106
· <b>UN proper shipping name</b> · <b>ADG</b> · <b>IMDG</b> · <b>IATA</b>	3106 ORGANIC PEROXIDE TYPE D, SOLID, ENVIRONMENTALLY HAZARDOUS ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT Organic peroxide type D, solid
· <b>Transport hazard class(es)</b> · <b>ADG, IMDG</b>	
 	
· <b>Class</b> · <b>Label</b>	5.2 Organic peroxides. 5.2
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	5.2 Organic peroxides. 5.2
· <b>Packing group</b> · <b>ADG, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADG):</b>	Symbol (fish and tree) Symbol (fish and tree)
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b>	Warning: Organic peroxides. 90

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· <b>EMS Number:</b>	F-J,S-R
· <b>Stowage Category</b>	D
· <b>Stowage Code</b>	SW1 Protected from sources of heat.
· <b>Segregation Code</b>	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADG</b>	
· <b>Limited quantities (LQ)</b>	500 g
· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, ENVIRONMENTALLY HAZARDOUS

### 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**



GHS01 GHS02 GHS07 GHS08

· **Signal word** Danger

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

dibenzoyl peroxide

· **Hazard statements**

Heating may cause a fire or explosion.

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

· **Precautionary statements**

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

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Keep/Store away from clothing/combustible materials.  
 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Wear protective gloves / eye protection / face protection.  
 Keep only in original container.  
 Wash thoroughly after handling.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 Specific treatment (see on this label).  
 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
 Wash contaminated clothing before reuse.  
 IF exposed or concerned: Get medical advice/attention.  
 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: CO<sub>2</sub>, powder or water spray.  
 IF ON SKIN: Wash with plenty of water.  
 Store locked up.  
 Protect from sunlight.  
 Store away from other materials.  
 Store in a well-ventilated place. Keep cool.  
 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**  
 P6a SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES  
 E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
- **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  
 vPvB: very Persistent and very Bioaccumulative  
 Self-react. B: Self-Reactive Substances and Mixtures, Type B  
 Org. Perox. CD: Organic Peroxides, Types C, D  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 Repr. 2: Reproductive toxicity, Hazard Category 2

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/31/2015

Reviewed on 12/31/2015

## 1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 7100 - HARDENER 1
- **Article number:** 14653(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: info@emsdiasum.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**



GHS01 GHS02 Exploding bomb, Flame

Self-reactive Substances and Mixtures – Type B H241 Heating may cause a fire or explosion.



GHS02 Flame

Organic Peroxides – Type D

H242 Heating may cause a fire.



GHS08 Health hazard

Reproductive Toxicity - Category 2

H361 Suspected of damaging 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**



GHS01

GHS02

GHS07

GHS08

- **Signal word** Danger

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**Trade name: TECHNOVIT 7100 - HARDENER 1**

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

*dibenzoyl peroxide*

· **Hazard statements**

*Heating may cause a fire or explosion.*

*Heating may cause a fire.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

· **Precautionary statements**

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

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

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

*Keep cool.*

*Ground and bond container and receiving equipment.*

*Keep only in original packaging.*

*Wash thoroughly after handling.*

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

*Obtain special instructions before use.*

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

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

*Continue rinsing.*

*Specific treatment (see on this label).*

*In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.*

*IF exposed or concerned: Get medical advice/attention.*

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

*If eye irritation persists: Get medical advice/attention.*

*IF ON SKIN: Wash with plenty of water.*

*Take off contaminated clothing and wash it before reuse.*

*Store locked up.*

*Protect from sunlight.*

*Store separately.*

*Store in a well-ventilated place.*

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

· **Hazard description:**

· **WHMIS-symbols:**

*C - Oxidizing materials*

*D2A - Very toxic material causing other toxic effects*

*F - Dangerously reactive material*



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



*Health = 1*

*Fire = 3*

*Reactivity = 3*

*The substance possesses oxidizing properties.*

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- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	3	Reactivity = 3

- **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	30-60% w/w
---------	--------------------	------------

### 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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.

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- **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** Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
- Protect from heat.
- Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
- Keep receptacle tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- Protect from heat and direct sunlight.
- **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:**

**94-36-0 dibenzoyl peroxide**

EL Long-term value: 5 mg/m<sup>3</sup>

EV Long-term value: 5 mg/m<sup>3</sup>

- **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.
- Store protective clothing separately.
- 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.

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Trade name: **TECHNOVIT 7100 - HARDENER 1**

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*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:** Characteristic

- **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.

- **Ignition temperature:**

**Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard. Heating may cause an explosion.

- **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

- **Vapor pressure at 20 °C:** 1 hPa

- **Density at 20 °C:** 1.24 g/cm<sup>3</sup>

- **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.

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- |                            |   |
|----------------------------|---|
| · <b>Viscosity:</b>        |   |
| · <b>Dynamic:</b>          | Not applicable.                                       |
| · <b>Kinematic:</b>        | Not applicable.                                       |
| · <b>Solvent content:</b>  |   |
| · <b>Organic solvents:</b> | 0.0 %   |
| · <b>Solids content:</b>   |   |
| · <b>Other information</b> | 100.0 %<br>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**

· <b>IARC (International Agency for Research on Cancer)</b>		
94-36-0	dibenzoyl peroxide	3

· <b>NTP (National Toxicology Program)</b>
None of the ingredients is listed.

· <b>OSHA-Ca (Occupational Safety Health Administration)</b>
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.

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· **Ecotoxicological effects:**· **Remark:***Very toxic for fish**Toxic for fish*· **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.**Also poisonous for fish and plankton in water bodies.**Very toxic for aquatic organisms**Toxic for aquatic organisms*· **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, IATA***Organic peroxide type D, solid*· **TDG***3106 Organic peroxide type D, solid, ENVIRONMENTALLY HAZARDOUS*· **IMDG***ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT*· **Transport hazard class(es)**· **DOT**· **Class**

5.2 Organic peroxides

· **Label**

5.2

· **TDG, IMDG**· **Class**

5.2 Organic peroxides

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· **Label** 5.2· **IATA**

· **Class** 5.2 Organic peroxides  
 · **Label** 5.2

· **Packing group**  
 · **DOT, TDG, IMDG, IATA** Void

· **Environmental hazards:**  
 · **Marine pollutant:** Symbol (fish and tree)  
 · **Special marking (TDG):** Symbol (fish and tree)

· **Special precautions for user** Warning: Organic peroxides  
 · **Danger code (Kemler):** 90  
 · **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:**

· **TDG**  
 · **Excepted quantities (EQ)** Code: E0  
 Not permitted as Excepted Quantity

· **IMDG**  
 · **Limited quantities (LQ)** 5 kg  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 g  
 Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":** UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, ENVIRONMENTALLY HAZARDOUS

## 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.

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CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 12/31/2015

Reviewed on 12/31/2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 8)

· **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.

· **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.

· **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**



GHS01

GHS02

GHS07

GHS08

· **Signal word** *Danger*

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

dibenzoyl peroxide

· **Hazard statements**

Heating may cause a fire or explosion.

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

· **Precautionary statements**

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

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

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

Keep cool.

Ground and bond container and receiving equipment.

Keep only in original packaging.

(Contd. on page 10)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 12/31/2015

Reviewed on 12/31/2015

**Trade name: TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 9)

Wash thoroughly after handling.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Specific treatment (see on this label).  
 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
 IF exposed or concerned: Get medical advice/attention.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 IF ON SKIN: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 Protect from sunlight.  
 Store separately.  
 Store in a well-ventilated place.  
 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 preparation / last revision** 12/31/2015 / -

· **Abbreviations and acronyms:**

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

**Self-reactive Substances and Mixtures – Type B: Self-Reactive Substances and Mixtures, Type B**

**Organic Peroxides – Type D: Organic Peroxides, Types C, D**

**Eye Irritation - Category 2A: Serious eye damage/eye irritation, Hazard Category 2A**

**Skin Sensitizer - Category 1: Sensitisation - Skin, Hazard Category 1**

**Reproductive Toxicity - Category 2: Reproductive toxicity, Hazard Category 2**

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

Printing date 31.12.2015

Revision: 31.12.2015

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

- **1.1 Product identifier**
- **Trade name:** TECHNOVIT 7100 - HARDENER 1
- **Article number:** 14653(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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



GHS01 GHS02 exploding bomb, flame

Self-react. B      H241 Heating may cause a fire or explosion.



GHS08 health hazard

Repr. 2      H361f Suspected of damaging fertility.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.

Aquatic Chronic 2      H411 Toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2      H319 Causes serious eye irritation.

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

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

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

(Contd. on page 2)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 1)

· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labelling:***dibenzoyl peroxide*· **Hazard statements***H241 Heating may cause a fire or explosion.**H242 Heating may cause a fire.**H319 Causes serious eye irritation.**H317 May cause an allergic skin reaction.**H361f Suspected of damaging fertility.**H400 Very toxic to aquatic life.**H411 Toxic to aquatic life with long lasting effects.*· **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.**P321 Specific treatment (see on this label).**P405 Store locked up.**P410 Protect from sunlight.**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	substance with a Community workplace exposure limit	

· **Additional information:** For the wording of the listed risk 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.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 2)

- **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.
- **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **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** Open and handle receptacle with care.
- **Information about fire - and explosion protection:**  
Protect from heat.  
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **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.

(Contd. on page 4)



# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 31.12.2015

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Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 3)

### · 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<sup>3</sup>

##### **84-61-7 dicyclohexyl phthalate**

WEL Long-term value: 5 mg/m<sup>3</sup>

· **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

Wash hands before breaks and at the end of work.

Store protective clothing separately.

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:** Characteristic

· **Odour threshold:** Not determined.

(Contd. on page 5)

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

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 4)

· <b>pH-value:</b>	<i>Not applicable.</i>
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	<i>Undetermined.</i>
<b>Boiling point/Boiling range:</b>	<i>Undetermined.</i>
· <b>Flash point:</b>	<i>Not applicable.</i>
· <b>Flammability (solid, gaseous):</b>	<i>May cause fire.</i>
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	<i>Not determined.</i>
· <b>Self-igniting:</b>	<i>Product is not selfigniting.</i>
· <b>Danger of explosion:</b>	<i>Product does not present an explosion hazard. Heating may cause an explosion.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
· <b>Vapour pressure at 20 °C:</b>	<i>1 hPa</i>
· <b>Density at 20 °C:</b>	<i>1.24 g/cm<sup>3</sup></i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapour density</b>	<i>Not applicable.</i>
· <b>Evaporation rate</b>	<i>Not applicable.</i>
· <b>Solubility in / Miscibility with water:</b>	<i>Insoluble.</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>Dynamic:</b>	<i>Not applicable.</i>
<b>Kinematic:</b>	<i>Not applicable.</i>
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	<i>0.0 %</i>
<b>VOC (EC)</b>	<i>0.00 %</i>
<b>Solids content:</b>	<i>100.0 %</i>
· <b>9.2 Other information</b>	<i>No further relevant information available.</i>

### 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.*

GB

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

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### 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**  
Suspected of damaging fertility.
- **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.

### 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.
- **Ecotoxicological effects:**
- **Remark:**  
Very toxic for fish  
Toxic for fish
- **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.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
Toxic for aquatic organisms
- **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.

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

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 6)

- **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, ENVIRONMENTALLY HAZARDOUS

· **IMDG** ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT

· **IATA** Organic peroxide type D, solid

· **14.3 Transport hazard class(es)**

· **ADR, IMDG**



· **Class** 5.2 Organic peroxides.

· **Label** 5.2

· **IATA**



· **Class** 5.2 Organic peroxides.

· **Label** 5.2

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** Symbol (fish and tree)

· **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user**

· **Danger code (Kemler):** 90

· **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

(Contd. on page 8)

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

Printing date 31.12.2015

Revision: 31.12.2015

Trade name: **TECHNOVIT 7100 - HARDENER 1**

(Contd. of page 7)

· <b>Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	D
<hr/>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, ENVIRONMENTALLY HAZARDOUS

### 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**  
P6a SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
- **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.
- **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  
vPvB: very Persistent and very Bioaccumulative  
Self-react. B: Self-Reactive Substances and Mixtures, Type B  
Org. Perox. B: Organic Peroxides, Type B  
Org. Perox. CD: Organic Peroxides, Types C, D  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Repr. 2: Reproductive toxicity, Hazard Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

# Sigurnosno-tehnički list

## U skladu s 1907/2006/EU, članak 31

Nadnevak tiska: 31.12.2015

Revizija: 31.12.2015

### ODJELJAK 1: Identifikacija tvari/smjese i podaci o tvrtki/poduzeću

- **1.1 Identifikacijska oznaka proizvoda**
- **Naziv proizvoda: TECHNOVIT 7100 - HARDENER 1**
- **Šifra proizvoda: 14653(H1)**
- **1.2 Relevantne identificirane uporabe tvari ili smjese i uporabe koje se ne preporučuju**  
Nema daljnjih bitnih informacija na raspolaganju.
- **Uporaba tvari/pripravaka kemikalije za laboratorij**
- **1.3 Podaci o dobavljaču koji isporučuje sigurnosno-tehnički list**
- **Proizvođač/uvoznik/distributer:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Daljnje informacije se mogu nabaviti: Product safety department**
- **1.4 Broj telefona za izvanredna stanja**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ODJELJAK 2: Identifikacija opasnosti

- **2.1 Razvrstavanje tvari ili smjese**
- **Razvrstavanje u skladu s Uredbom (EZ) br. 1272/2008**



GHS01 GHS02 eksplozivna bomba, plamen

Self-react. B      H241 Zagrijavanje može uzrokovati požar ili eksploziju.



GHS08 opasnost za zdravlje

Repr. 2      H361f Sumnja na moguće štetno djelovanje na plodnost.



GHS09 okoliš

Aquatic Acute 1      H400 Vrlo otrovno za vodeni okoliš.

Aquatic Chronic 2      H411 Otrovno za vodeni okoliš s dugotrajnim učincima.



GHS07

Eye Irrit. 2      H319 Uzrokuje jako nadraživanje oka.

Skin Sens. 1      H317 Može izazvati alergijsku reakciju na koži.

Org. Perox. CD      H242 Zagrijavanje može uzrokovati požar.

- **2.2 Elementi označavanja**
- **Označavanje sukladno Uredbi (EG) br. 1272/2008**  
Proizvod je razvrstan i označen sukladno Uredbi o razvrstavanju, označavanju i pakiranju.

(Nastavak na strani 2)

# Sigurnosno-tehnički list

## U skladu s 1907/2006/EU, članak 31

Nadnevak tiska: 31.12.2015

Revizija: 31.12.2015

Naziv proizvoda: **TECHNOVIT 7100 - HARDENER 1**

(Nastavak sa strane 1)

### · Piktogrami opasnosti



### · Oznaka opasnosti Opasnost

#### · Oznake koje označavaju opasnost:

dibenzoyl peroxide

#### · Oznake upozorenja

H241 Zagrijavanje može uzrokovati požar ili eksploziju.

H242 Zagrijavanje može uzrokovati požar.

H319 Uzrokuje jako nadraživanje oka.

H317 Može izazvati alergijsku reakciju na koži.

H361f Sumnja na moguće štetno djelovanje na plodnost.

H400 Vrlo otrovno za vodeni okoliš.

H411 Otrovno za vodeni okoliš s dugotrajnim učincima.

#### · Oznake obavijesti

P210 Čuvati odvojeno od topline, vrućih površina, iskri, otvorenih plamena i ostalih izvora paljenja. Ne pušiti.

P305+P351+P338 U SLUČAJU DODIRA S OČIMA: oprezno ispirati vodom nekoliko minuta. Ukloniti kontaktne leće ukoliko ih nosite i ako se one lako uklanjaju. Nastaviti ispiranje.

P321 Posebna liječnička obrada (vidjeti na ovoj naljepnici).

P405 Skladištiti pod ključem.

P410 Zaštititi od sunčevog svjetla.

P501 Odložite sadržaje /spremnike u skladu s lokalnim/regionalnim/nacionalni/međunarodnim odredbama.

### · 2.3 Ostale opasnosti

#### · Rezultati PBT- i vPvB procjena

· PBT: Ne primjenjuje se.

· vPvB: Ne primjenjuje se.

## ODJELJAK 3: Sastav/informacije o sastojcima

### · 3.2 Kemijska svojstva: Smjese

· Opis: Smjesa od sljedećih navedenih materijala s neopasnim primjesama.

#### · Sastojci koji pridonose opasnosti proizvoda:

94-36-0	dibenzoyl peroxide	25-50%
	Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	
84-61-7	dicyclohexyl phthalate	25-50%
	Tvar za koju je predviđena određena granična vrijednost izlaganja na radnom mjestu	

· Dodatne informacije: Tekst navedenih napomena o opasnostima nalazi se u 16. poglavlju.

## ODJELJAK 4: Mjere prve pomoći

### · 4.1 Opis mjera prve pomoći

#### · Nakon udisanja:

Omogućiti dotok većih količina svježeg zraka i za svaki slučaj potražiti liječničku pomoć.

U besvijesnom stanju ležanje i transport u stabilnom bočnom položaju.

· Nakon dodira s kožom: Odmah oprati vodom i sapunom te dobro isprati.

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- **Nakon dodira s očima:**  
Isprati oči tekućom vodom nekoliko minuta. Oči prilikom ispiranja moraju biti otvorene. U slučaju trajnih smetnji savjetovati se s liječnikom.
- **Nakon gutanja:** U slučaju trajnih smetnji savjetovati se s liječnikom.
- **4.2 Najvažniji simptomi i učinci, akutni i odgođeni** Nema daljnjih bitnih informacija na raspolaganju.
- **4.3 Navod o slučaju potrebe za hitnom liječničkom pomoći i posebnom obradom**  
Nema daljnjih bitnih informacija na raspolaganju.

### ODJELJAK 5: Mjere gašenja požara

- **5.1 Sredstva za gašenje**
- **Prikladna:**  
CO<sub>2</sub>, prah za gašenje, raspršeni mlaz vode. Veći požar suzbijati raspršenim mlazom vode ili pjenom koja je postojana na alkohol.
- **5.2 Posebne opasnosti koje proizlaze iz tvari ili smjese** Nema daljnjih bitnih informacija na raspolaganju.
- **5.3 Savjeti za gasitelje požara**
- **Posebna oprema za zaštitu vatrogasaca:** Nisu potrebite nikakve posebne mjere.

### ODJELJAK 6: Mjere kod slučajnog ispuštanja

- **6.1 Osobne mjere opreza, zaštitna oprema i postupci za izvanredna stanja** Nepotrebno
- **6.2 Mjere zaštite okoliša**  
U slučaju dospjeća u vode ili kanalizaciju izvijestiti nadležne organe.  
Ne smije dospjeti u kanalizaciju/površinske vode/podzemne vode.
- **6.3 Metode i materijal za sprječavanje širenja i čišćenje**  
Kontaminirani materijal zbrinuti kao otpad prema točki 13.
- **6.4 Uputa na druge odjeljke**  
Informacije o sigurnom rukovanju vidi poglavlje 7.  
Informacije o osobnoj zaštitnoj opremi vidi poglavlje 8.  
Informacije o zbrinjavanju vidi poglavlje 13.

### ODJELJAK 7: Rukovanje i skladištenje

- **7.1 Mjere opreza za sigurno rukovanje** Oprezno otvarati spremnike i rukovati istima.
- **Upute za zaštitu od požara i eksplozije:**  
Zaštititi od vrućine.  
Imati u pripravi uređaje za zaštitu disanja.
- **7.2 Uvjeti sigurnog skladištenja, uzimajući u obzir moguće inkompatibilnosti**
- **Skladištenje:**
- **Zahtjevi koje skladišni prostori i spremnici moraju ispunjavati:** Skladištiti na hladnom mjestu.
- **Upute za zajedničko skladištenje:** Nepotrebno.
- **Dodatne informacije o uvjetima skladištenja:**  
Spremnik moraju biti nepropustno zatvoreni.  
Skladištiti na hladnom i suhom mjestu u dobro zatvorenim bačvama.  
Zaštititi od vrućine i neposredne izloženosti sunčevim zrakama.
- **7.3 Posebna krajnja uporaba ili uporabe** Nema daljnjih bitnih informacija na raspolaganju.

### ODJELJAK 8: Nadzor nad izloženošću/osobna zaštita

- **Dodatne upute za oblikovanje tehničkih sustava:** Nema daljnjih podataka, vidi točka 7.

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### · 8.1 Nadzorni parametri

· Nadzor izloženosti na radnom mjestu:	
<b>94-36-0 dibenzoyl peroxide</b>	
GVI	Dugotrajna vrijednost: 5 mg/m <sup>3</sup>
<b>84-61-7 dicyclohexyl phthalate</b>	
GVI	Dugotrajna vrijednost: 5 mg/m <sup>3</sup>

· **Dodatne informacije:** Kao osnova su služili popisi, koji su bili važeći u trenutku izrade.

### · 8.2 Nadzor nad izloženošću

· **Mjere osobne zaštite:**

· **Opće zaštitne i higijenske mjere:**

Držati dalje od živežnih namirnica, pića i krme.

Odmah skinuti zamazanu i tekućinom natopljenu odjeću.

Prije pauze i kraja radnog vremena oprati ruke.

Zaštitnu odjeću čuvati odvojeno.

Izbjegavati dodir s očima.

Izbjegavati dodir s očima i kožom.

· **Zaštita organa za disanje:** Nepotrebno.

· **Zaštita ruku:**



Zaštitne rukavice

Materijal za rukavice mora biti nepropustan i postojan na proizvod / tvar / pripravak.

S obzirom da nema ispitivanja, ne može se dati preporuka za materijal za rukavice za proizvod / pripremu / mješavinu kemikalija.

Kod odabira materijala za rukavice obratiti pozornost na vrijeme perforacije materijala, stupanj permeacije i degradaciju.

· **Materijal za rukavice**

Odabir prikladnih rukavica ovisi ne samo o materijalu, već i o drugim obilježjima kvalitete i različit je od proizvođača do proizvođača. Kako proizvod predstavlja spoj nekoliko različitih materijala, postojanost materijala za rukavice ne može se izračunati unaprijed i stoga se mora provjeriti prije uporabe.

· **Vrijeme prodiranja materijala za rukavice**

Točno vrijeme perforacije materijala može se saznati kod proizvođača zaštitnih rukavica i treba ga se pridržavati.

· **zaštita očiju:**



Zaštitne naočale, koje nepropustno naliježu

## ODJELJAK 9: Fizikalna i kemijska svojstva

· **9.1 Informacije o osnovnim fizikalnim i kemijskim svojstvima**

· **Opće informacije**

· **Agregatno stanje:**

**Oblik:** Prašak

**Boja:** Bijel

· **Miris:** Karakterističan

· **Prag mirisa:** Nije određeno.

(Nastavak na strani 5)

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· <b>pH vrijednost:</b>	Nije primjenjiv.
· <b>Promjena stanja</b> Talište/područje taljenja:	Neodređen.
Vrelište/područje vrenja:	Neodređen.
· <b>Plamište:</b>	Nije primjenjiv.
· <b>Zapaljivost (kruta tvar, plin):</b>	Može uzrokovati požar.
· <b>Temperatura paljenja:</b>	
Temperatura raspada:	Nije određeno.
· <b>Samozapaljivost:</b>	Proizvod nije samozapaljiv.
· <b>Opasnost od eksplozije:</b>	Ne postoji opasnost od eksplozije proizvoda. Zagrijavanje može uzrokovati eksploziju.
· <b>Granice eksplozivnosti:</b> Donja:	Nije određeno.
Gornja:	Nije određeno.
· <b>Tlak pare kod 20 °C:</b>	1 hPa
· <b>Gustoća kod 20 °C:</b>	1.24 g/cm <sup>3</sup>
· <b>Relativna gustoća</b>	Nije određeno.
· <b>Gustoća pare</b>	Nije primjenjiv.
· <b>Brzina isparavanja</b>	Nije primjenjiv.
· <b>Topivost u / Miješanje s vodom:</b>	Netopiv.
· <b>Koeficijent raspodjele-oktanol/voda:</b>	Nije određeno.
· <b>Viskoznost:</b> dinamička:	Nije primjenjiv.
kinematička:	Nije primjenjiv.
· <b>Koncentracija otapala:</b> organska otapala:	0,0 %
Sadržaj hlapivog	0,00 %
· <b>Koncentracija čvrstog tijela:</b>	100,0 %
· <b>9.2 Ostale informacije</b>	Nema daljnjih bitnih informacija na raspolaganju.

### **ODJELJAK 10: Stabilnost i reaktivnost**

- **10.1 Reaktivnost** Nema daljnjih bitnih informacija na raspolaganju.
- **10.2 Kemijska stabilnost**
- **Termičko raspadanje / Uvjeti koje treba izbjegavati:** Ne rastvara se kod predviđene uporabe.
- **10.3 Mogućnost opasnih reakcija** Nisu poznate opasne reakcije.
- **10.4 Uvjeti koje treba izbjegavati** Nema daljnjih bitnih informacija na raspolaganju.
- **10.5 Inkompatibilni materijali** Nema daljnjih bitnih informacija na raspolaganju.
- **10.6 Opasni proizvodi raspadanja** Nisu poznati nikakvi opasni proizvodi rastvaranja.

HR

(Nastavak na strani 6)

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### ODJELJAK 11: Toksikološke informacije

- **11.1 Informacije o toksikološkim učincima**
- **Akutna toksičnost** Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **Primarno nadražujuće djelovanje:**
- **Nagrizanje/nadraživanje kože**  
Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **Ozbiljno oštećenje/nadraživanje očiju**  
Uzrokuje jako nadraživanje oka.
- **Izazivanje preosjetljivosti dišnih putova ili kože**  
Može izazvati alergijsku reakciju na koži.
- **Informacije o sljedećim grupama potencijalnih učinaka:**
- **CMR djelovanje (kancerogeno, mutageno i za reproduktivni sistem toksično djelovanje)**
- **Mutageni učinak na spolne stanice**  
Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **Karcinogenost** Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **Reproduktivna toksičnost**  
Sumnja na moguće štetno djelovanje na plodnost.
- **TCO – jednokratno izlaganje**  
Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **TCO – ponavljano izlaganje**  
Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.
- **Opasnost od aspiracije** Temeljem dostupnih podataka razvidno je da nisu ispunjeni kriteriji za razvrstavanje.

### ODJELJAK 12: Ekološke informacije

- **12.1 Toksičnost**
- **Akvatična toksičnost:** Nema daljnjih bitnih informacija na raspolaganju.
- **12.2 Postojanost i razgrađivost** Nema daljnjih bitnih informacija na raspolaganju.
- **12.3 Bioakumulacijski potencijal** Nema daljnjih bitnih informacija na raspolaganju.
- **12.4 Pokretljivost u tlu** Nema daljnjih bitnih informacija na raspolaganju.
- **Eko-toksično djelovanje:**
- **Napomena:**  
Vrlo otrovno za ribe.  
Otrovno za ribe.
- **Daljnje ekološke upute:**
- **Opće upute:**  
Klasa zagađenja vode 1 (Samostupnjevanje): slabo zagađuje vodu  
Ne dopustiti da nerazrijeđen, odn. u većim količinama dopije u podzemene vode, vodu ili kanalizaciju.  
U vodi otrovan za ribe i planktone.  
vrlo otrovno za vodene organizme  
otrovno za vodene organizme
- **12.5 Rezultati ocjenjivanja svojstava PBT i vPvB**
- **PBT:** Nije primjenjiv.
- **vPvB:** Nije primjenjiv.
- **12.6 Ostali štetni učinci** Nema daljnjih bitnih informacija na raspolaganju.

### ODJELJAK 13: Zbrinjavanje

- **13.1 Metode obrade otpada**
- **Preporuka:** Ne smije se zbrinjavati zajedno s komunalnim otpadom. Ne smije dospjeti u kanalizaciju.

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- **Onečišćena ambalaža:**
- **Preporuka:** Odlaganje shodno propisima nadležnih organa.

### ODJELJAK 14: Informacije o prijevozu

<ul style="list-style-type: none"> <li>· <b>14.1 UN broj</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3106
<ul style="list-style-type: none"> <li>· <b>14.2 Pravilno otpremno ime prema UN-u</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3106 ORGANSKI PEROKSID TIP D, KRUTI, OPASNO ZA OKOLIŠ ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT Organic peroxide type D, solid
<ul style="list-style-type: none"> <li>· <b>14.3 Razred(i) opasnosti pri prijevozu</b></li> <li>· <b>ADR, IMDG</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div>
<ul style="list-style-type: none"> <li>· <b>klasa</b></li> <li>· <b>Popis opasnosti</b></li> </ul>	5.2 organski peroksidi 5.2
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	5.2 organski peroksidi 5.2
<ul style="list-style-type: none"> <li>· <b>14.4 Skupina pakiranja</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	poništava
<ul style="list-style-type: none"> <li>· <b>14.5 Opasnosti za okoliš</b></li> <li>· <b>Zagađivač mora:</b></li> <li>· <b>Posebno označavanje (ADR):</b></li> </ul>	Simbol (ribe i stabla) Simbol (ribe i stabla)
<ul style="list-style-type: none"> <li>· <b>14.6 Posebne mjere opreza za korisnika</b></li> <li>· <b>Kemler-broj:</b></li> <li>· <b>EMS-broj:</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> <li>· <b>Segregation Code</b></li> </ul>	Upozorenje: organski peroksidi 90 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"> <li>· <b>14.7 Prijevoz u razlivenom stanju u skladu s Prilogom II. Konvenciji MARPOL i Kodeksom IBC</b></li> </ul>	Nije primjenjiv.
<ul style="list-style-type: none"> <li>· <b>Transport/daljnji podaci:</b></li> </ul>	<hr style="border-top: 1px dashed black;"/>
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Ograničene količine</b></li> </ul>	500 g

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· Izuzete količine (EQ)	Oznaka: E0 Nije dopušteno prevoziti kao izuzete količine
· Prijevozna kategorija	2
· Tunelska restriksijska oznaka	D
<hr style="border-top: 1px dashed #000;"/>	
· IMDG	
· Limited quantities (LQ)	5 kg
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· UN "Regulacija modela":	UN 3106 ORGANSKI PEROKSID TIP D, KRUTI, 5.2, OPASNO ZA OKOLIŠ

### ODJELJAK 15: Informacije o propisima

- **15.1 Propisi u području sigurnosti, zdravlja i okoliša/posebni propisi za tvar ili smjesu**
- Direktiva 2012/18/EU
- Imena opasnih tvari – **PRILOG I** Nijedan sastojak nije na popisu
- Seveso kategorije  
P6a SAMOREAGIRAJUĆE TVARI I SMJESE te ORGANSKI PEROKSIDI  
E1 Opasno za vodeni okoliš
- Propisana količina (u tonama) za primjenu - zahtjeva niže razine 10 t
- Propisana količina (u tonama) za primjenu - zahtjeva više razine 50 t
- **15.2 Procjena kemijske sigurnosti** Nije izvršena procjena sigurnosti tvari.

### ODJELJAK 16: Ostale informacije

Podaci počivaju na današnjoj razini naših znanja, međutim ne predstavljaju nikakvo jamstvo o osobinama materijala i ne zasnivaju nikakav ugovorni pravni odnos.

- **Značenje oznaka upozorenja:**  
H241 Zagrijavanje može uzrokovati požar ili eksploziju.  
H317 Može izazvati alergijsku reakciju na koži.  
H319 Uzrokuje jako nadraživanje oka.
- **Skraćenice i kratice:**  
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  
vPvB: very Persistent and very Bioaccumulative  
Self-react. B: Self-Reactive Substances and Mixtures, Type B  
Org. Perox. B: Organic Peroxides, Type B  
Org. Perox. CD: Organic Peroxides, Types C, D  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
Repr. 2: Reproductive toxicity, Hazard Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 31.12.2015

Herziening van: 31.12.2015

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

### · 1.1 Productidentificatie

· Handelsnaam: **TECHNOVIT 7100 - HARDENER 1**

· Artikelnummer: 14653(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: info@emsdiasum.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



GHS01 GHS02 ontploffende bom, vlam

*Self-react. B*

*H241 Brand- of ontploffingsgevaar bij verwarming.*



GHS08 gezondheidsgevaar

*Repr. 2*

*H361f Wordt ervan verdacht de vruchtbaarheid te schaden.*



GHS09 milieu

*Aquatic Acute 1*

*H400 Zeer giftig voor in het water levende organismen.*

*Aquatic Chronic 2*

*H411 Giftig voor in het water levende organismen, met langdurige gevolgen.*



GHS07

*Eye Irrit. 2*

*H319 Veroorzaakt ernstige oogirritatie.*

(Vervolg op blz. 2)

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(Vervolg van blz. 1)

*Skin Sens. 1*      *H317* Kan een allergische huidreactie veroorzaken.

*Org. Perox. CD*    *H242* Brandgevaar bij verwarming.

### 2.2 Etiketteringselementen

#### Etikettering overeenkomstig Verordening (EG) nr. 1272/2008

Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

#### Gevarenpictogrammen



GHS01    GHS02    GHS07    GHS08    GHS09

#### Signaalwoord Gevaar

#### Gevaaraanduidende componenten voor de etikettering:

dibenzoylperoxide

#### Gevarenaanduidingen

*H241* Brand- of ontploffingsgevaar bij verwarming.

*H242* Brandgevaar bij verwarming.

*H319* Veroorzaakt ernstige oogirritatie.

*H317* Kan een allergische huidreactie veroorzaken.

*H361f* Wordt ervan verdacht de vruchtbaarheid te schaden.

*H400* Zeer giftig voor in het water levende organismen.

*H411* Giftig voor in het water levende organismen, met langdurige gevolgen.

#### 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.

*P321* Specifieke behandeling vereist (zie op dit etiket).

*P405* Achter slot bewaren.

*P410* Tegen zonlicht beschermen.

*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	<i>Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317</i>	

#### Aanvullende gegevens:

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

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(Vervolg op blz. 3)

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### RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Na het inademen:**  
Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.  
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:**  
CO<sub>2</sub>, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- **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:**  
Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.  
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:** Besmet materiaal zoals afval volgens punt 13 verwijderen.
- **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**  
Tanks voorzichtig openen en behandelen.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**  
Beschermen tegen hitte.  
Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Op een koele plaats bewaren.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**  
Tanks ondoordringbaar gesloten houden.

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*Koel en droog bewaren in goed gesloten vaten.*

*Tegen hitte en directe zonnestrallen beschermen.*

· **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.*

· **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.*

*Beschermende kleding afzonderlijk bewaren.*

*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

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## RUBRIEK 9: Fysische en chemische eigenschappen

### · 9.1 Informatie over fysische en chemische basiseigenschappen

#### · Algemene gegevens

#### · Voorkomen:

Vorm:	Poeder
Kleur:	Wit
· Reuk:	Karakteristiek
· Geurdrempelwaarde:	Niet bepaald.

· pH-waarde: Niet bruikbaar.

#### · Toestandsverandering

Smeltpunt/smeltbereik:	Niet bepaald.
Kookpunt/kookpuntbereik:	Niet bepaald.

· Vlampunt: Niet bruikbaar.

· Ontvlambaarheid (vast, gasvormig): Kan brand veroorzaken.

#### · Ontstekingsstemperatuur:

Ontbindingstemperatuur: Niet bepaald.

· Zelfontsteking: Het produkt ontbrandt niet uit zichzelf.

· Ontploffingsgevaar: Het produkt is niet ontploffingsgevaarlijk.  
Ontploffingsgevaar door verwarming.

#### · Ontploffingsgrenzen:

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· Dampspanning bij 20 °C: 1 hPa

· Dichtheid bij 20 °C:	1,24 g/cm <sup>3</sup>
· 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:

Organisch oplosmiddel:	0,0 %
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.

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- **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**  
Wordt ervan verdacht de vruchtbaarheid te schaden.
- **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.
- **Ecotoxische effecten:**
- **Opmerking:**  
Zeer giftig voor vissen.  
Giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL) 10: Kan in het aquatisch milieu op lange termijn schadelijke effecten veroorzaken.  
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.  
In oppervlaktewater ook giftig voor vissen en plankton.  
zeer giftig voor in het water levende organismen  
giftig voor in het water levende organismen
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

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## 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

- |  |   |
|--|---|
| · <b>14.1 VN-nummer</b><br>· <b>ADR, IMDG, IATA</b>  | UN3106  |
| · <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b><br>· <b>ADR</b><br><br>· <b>IMDG</b><br><br>· <b>IATA</b>   | 3106 ORGANISCH PEROXIDE VAN TYPE D, VAST, MILIEUGEVAARLIJK<br>ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT<br>Organic peroxide type D, solid                            |
| · <b>14.3 Transportgevarenklasse(n)</b><br>· <b>ADR, IMDG</b>  |   |
|                        |   |
| · <b>klasse</b><br>· <b>Etiket</b>   | 5.2 Organische peroxiden<br>5.2   |
| · <b>IATA</b>  |   |
|   |   |
| · <b>Class</b><br>· <b>Label</b>   | 5.2 Organische peroxiden<br>5.2   |
| · <b>14.4 Verpakkingsgroep:</b><br>· <b>ADR, IMDG, IATA</b>  | Niet van toepassing   |
| · <b>14.5 Milieugevaren:</b><br>· <b>Marine pollutant:</b><br>· <b>Bijzondere kenmerking (ADR):</b>  | Symbool (vis en boom)<br>Symbool (vis en boom)  |
| · <b>14.6 Bijzondere voorzorgen voor de gebruiker</b><br>· <b>Kemler-getal:</b><br>· <b>EMS-nummer:</b><br>· <b>Stowage Category</b><br>· <b>Stowage Code</b><br>· <b>Segregation Code</b> | Waarschuwing: Organische peroxiden<br>90<br>F-J,S-R<br>D<br>SW1 Protected from sources of heat.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| · <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>  | Niet bruikbaar.   |

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· **Transport/verdere gegevens:**

· **ADR**

· **Beperkte hoeveelheden (LQ)**

500 g

· **Uitgezonderde hoeveelheden (EQ)**

Code: E0

Niet toegestaan als vrijgestelde hoeveelheid

· **Vervoerscategorie**

2

· **Tunnelbeperkingscode**

D

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **VN "Model Regulation":**

UN 3106 ORGANISCH PEROXIDE VAN TYPE D, VAST,  
5.2, MILIEUGEVAARLIJK

### 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.

· **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**

P6a ZELFONTLEDENDE STOFFEN EN MENGSELS en ORGANISCHE PEROXIDEN

E1 Gevaar voor het aquatisch milieu

· **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 10 t**

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

· **Nationale voorschriften:**

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL) 10: Saneringsinspanning A

· **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 producteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Relevante zinnen**

H241 Brand- of ontploffingsgevaar bij verwarming.

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*H317 Kan een allergische huidreactie veroorzaken.**H319 Veroorzaakt ernstige oogirritatie.***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**vPvB: very Persistent and very Bioaccumulative**Self-react. B: Self-Reactive Substances and Mixtures, Type B**Org. Perox. B: Organic Peroxides, Type B**Org. Perox. CD: Organic Peroxides, Types C, D**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*

-NL-

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 31.12.2015

Révision: 31.12.2015

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

- **1.1 Identificateur de produit**
- **Nom du produit:** TECHNOVIT 7100 - HARDENER 1
- **Code du produit:** 14653(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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://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**



GHS01 GHS02 bombe explosant, flamme

Self-react. B H241 Peut s'enflammer ou exploser sous l'effet de la chaleur.



GHS08 danger pour la santé

Repr. 2 H361f Susceptible de nuire à la fertilité.



GHS09 environnement

Aquatic Acute 1 H400 Très toxique pour les organismes aquatiques.

Aquatic Chronic 2 H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

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

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

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

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

(suite page 2)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 31.12.2015

Révision: 31.12.2015

**Nom du produit: TECHNOVIT 7100 - HARDENER 1**

(suite de la page 1)

**Pictogrammes de danger**


GHS01   GHS02   GHS07   GHS08   GHS09

**Mention d'avertissement Danger**
**Composants dangereux déterminants pour l'étiquetage:**

peroxyde de dibenzoyl

**Mentions de danger**

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

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

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H361f Susceptible de nuire à la fertilité.

H400 Très toxique pour les organismes aquatiques.

H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

**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.

P321 Traitement spécifique (voir sur cette étiquette).

P405 Garder sous clef.

P410 Protéger du rayonnement solaire.

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 dibenzoyl	25-50%
EINECS: 202-327-6	Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	

• **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.

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- **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.
- **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:**  
CO<sub>2</sub>, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- **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:**  
En cas de pénétration dans les eaux ou les égouts, avvertir les autorités compétentes.  
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:**  
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.
- **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**  
Ouvrir et manipuler les récipients avec précaution.
- **Préventions des incendies et des explosions:**  
Tenir à l'abri de la chaleur.  
Tenir des appareils de protection respiratoire prêts.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Stocker dans un endroit frais.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
Stocker au frais et au sec dans des fûts bien fermés.  
Protéger de la forte chaleur et du rayonnement direct du soleil.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

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### 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 <sup>3</sup>
-----	--

· **Remarques supplémentaires:**

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

· **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.

Conservé à part les vêtements de protection.

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

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· <b>Odeur:</b>	Caractéristique
· <b>Seuil olfactif:</b>	Non déterminé.
· <b>valeur du pH:</b>	Non applicable.
· <b>Changement d'état</b>	
<b>Point de fusion:</b>	Non déterminé.
<b>Point d'ébullition:</b>	Non déterminé.
· <b>Point d'éclair</b>	Non applicable.
· <b>Inflammabilité (solide, gazeux):</b>	Peut provoquer un incendie.
· <b>Température d'inflammation:</b>	
<b>Température de décomposition:</b>	Non déterminé.
· <b>Auto-inflammation:</b>	Le produit ne s'enflamme pas spontanément.
· <b>Danger d'explosion:</b>	Le produit n'est pas explosif. Danger d'explosion sous l'action de la chaleur.
· <b>Limites d'explosion:</b>	
<b>Inférieure:</b>	Non déterminé.
<b>Supérieure:</b>	Non déterminé.
· <b>Pression de vapeur à 20 °C:</b>	1 hPa
· <b>Densité à 20 °C:</b>	1.24 g/cm <sup>3</sup>
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur.</b>	Non applicable.
· <b>Vitesse d'évaporation</b>	Non applicable.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Insoluble
· <b>Coefficient de partage (n-octanol/eau):</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non applicable.
<b>Cinématique:</b>	Non applicable.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	0.0 %
<b>VOC (CE)</b>	0,00 %
<b>Teneur en substances solides:</b>	100.0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### 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

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### 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.
- **Toxicité pour la reproduction**  
Susceptible de nuire à la fertilité.
- **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.
- **Effets écotoxiques:**
- **Remarque:**  
Très toxique chez les poissons.  
Toxique chez les poissons.
- **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.  
Dans les eaux, également toxique pour les poissons et le plancton.  
Très toxique pour organismes aquatiques.  
Toxique pour les organismes aquatiques.
- **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.

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- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.

### RUBRIQUE 14: Informations relatives au transport

<ul style="list-style-type: none"> <li>· <b>14.1 Numéro ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3106	
<ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3106 PEROXYDE ORGANIQUE DE TYPE D, SOLIDE, DANGEREUX POUR L'ENVIRONNEMENT ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT Organic peroxide type D, solid	
<ul style="list-style-type: none"> <li>· <b>14.3 Classe(s) de danger pour le transport</b></li> <li>· <b>ADR, IMDG</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> <li>· <b>Classe</b></li> <li>· <b>Étiquette</b></li> </ul>	5.2 Peroxydes organiques. 5.2
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	5.2 Peroxydes organiques. 5.2
<ul style="list-style-type: none"> <li>· <b>14.4 Groupe d'emballage</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	néant	
<ul style="list-style-type: none"> <li>· <b>14.5 Dangers pour l'environnement:</b></li> <li>· <b>Marine Pollutant:</b></li> <li>· <b>Marquage spécial (ADR):</b></li> </ul>	Signe conventionnel (poisson et arbre) Signe conventionnel (poisson et arbre)	
<ul style="list-style-type: none"> <li>· <b>14.6 Précautions particulières à prendre par l'utilisateur</b></li> <li>· <b>Indice Kemler:</b></li> <li>· <b>No EMS:</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> <li>· <b>Segregation Code</b></li> </ul>	Attention: Peroxydes organiques. 90 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"> <li>· <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b></li> </ul>	Non applicable.	

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· **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

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **"Règlement type" de l'ONU:**

UN 3106 PEROXYDE ORGANIQUE DE TYPE D,  
SOLIDE, 5.2, DANGEREUX POUR  
L'ENVIRONNEMENT

### 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**

P6a SUBSTANCES ET MÉLANGES AUTORÉACTIFS et PEROXYDES ORGANIQUES

E1 Danger pour l'environnement aquatique

· **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 10 t**

· **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 50 t**

· **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.

· **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

vPvB: very Persistent and very Bioaccumulative

Self-react. B: Self-Reactive Substances and Mixtures, Type B

Org. Perox. B: Organic Peroxides, Type B

Org. Perox. CD: Organic Peroxides, Types C, D

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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**Nom du produit: TECHNOVIT 7100 - HARDENER 1***Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*

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# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31





Druckdatum: 31.12.2015

überarbeitet am: 31.12.2015

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

- **1.1 Produktidentifikator**
- **Handelsname:** TECHNOVIT 7100 - HARDENER 1
- **Artikelnummer:** 14653(H1)
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / 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: info@emsdiasum.com  
www.emsdiasum.com  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
24h Giftnotruf Munchen: +49 (0)89 19240  
Toxikologische Abteilung der II. Medizinischen Klinik  
rechts der Isar, Munchen. - www.toxinfo.org
- **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**
- 

GHS01 GHS02 explodierende Bombe, Flamme
- Self-react. B      H241 Erwärmung kann Brand oder Explosion verursachen.
- 
GHS08 Gesundheitsgefahr
- Repr. 2      H361f Kann vermutlich die Fruchtbarkeit beeinträchtigen.
- 
GHS09 Umwelt
- Aquatic Acute 1      H400 Sehr giftig für Wasserorganismen.
- Aquatic Chronic 2      H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

(Fortsetzung auf Seite 2)



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Handelsname: **TECHNOVIT 7100 - HARDENER 1**

(Fortsetzung von Seite 1)



GHS07

Eye Irrit. 2      H319 Verursacht schwere Augenreizung.  
 Skin Sens. 1      H317 Kann allergische Hautreaktionen verursachen.  
 Org. Perox. CD      H242 Erwärmung kann Brand verursachen.

### · 2.2 Kennzeichnungselemente

#### · Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

#### · Gefahrenpiktogramme



GHS01    GHS02    GHS07    GHS08    GHS09

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Dibenzoylperoxid

#### · Gefahrenhinweise

H241 Erwärmung kann Brand oder Explosion verursachen.

H242 Erwärmung kann Brand verursachen.

H319 Verursacht schwere Augenreizung.

H317 Kann allergische Hautreaktionen verursachen.

H361f Kann vermutlich die Fruchtbarkeit beeinträchtigen.

H400 Sehr giftig für Wasserorganismen.

H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

#### · 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.

P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).

P405 Unter Verschluss aufbewahren.

P410 Vor Sonnenbestrahlung schützen.

P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

#### · 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	

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· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### 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:**

CO<sub>2</sub>, Löschpulver oder Wassersprühstrahl. Größeren Brand mit Wassersprühstrahl oder alkoholbeständigem Schaum bekämpfen.

· **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:**

Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.

Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· **6.3 Methoden und Material für Rückhaltung und Reinigung:**

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

· **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** Behälter mit Vorsicht öffnen und handhaben.

· **Hinweise zum Brand- und Explosionsschutz:**

Vor Hitze schützen.

Atemschutzgeräte bereithalten.

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- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** An einem kühlen Ort lagern.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**  
Behälter dicht geschlossen halten.  
In gut verschlossenen Gebinden kühl und trocken lagern.  
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** -
- **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 <sup>3</sup> I(I);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.  
Getrennte Aufbewahrung der Schutzkleidung.  
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.

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· **Augenschutz:**

Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**· **Allgemeine Angaben**· **Aussehen:**

<b>Form:</b>	Pulver
--------------	--------

<b>Farbe:</b>	Weiß
---------------	------

<b>Geruch:</b>	Charakteristisch
----------------	------------------

<b>Geruchsschwelle:</b>	Nicht bestimmt.
-------------------------	-----------------

<b>pH-Wert:</b>	Nicht anwendbar.
-----------------	------------------

· **Zustandsänderung**

<b>Schmelzpunkt/Schmelzbereich:</b>	Nicht bestimmt.
-------------------------------------	-----------------

<b>Siedepunkt/Siedebereich:</b>	Nicht bestimmt.
---------------------------------	-----------------

<b>Flammpunkt:</b>	Nicht anwendbar.
--------------------	------------------

<b>Entzündlichkeit (fest, gasförmig):</b>	Kann Brand verursachen.
---	-------------------------

· **Zündtemperatur:**

<b>Zersetzungstemperatur:</b>	Nicht bestimmt.
-------------------------------	-----------------

<b>Selbstentzündlichkeit:</b>	Das Produkt ist nicht selbstentzündlich.
-------------------------------	--

<b>Explosionsgefahr:</b>	Das Produkt ist nicht explosionsgefährlich. Beim Erwärmen explosionsfähig.
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· **Explosionsgrenzen:**

<b>Untere:</b>	Nicht bestimmt.
----------------	-----------------

<b>Obere:</b>	Nicht bestimmt.
---------------	-----------------

<b>Dampfdruck bei 20 °C:</b>	1 hPa
------------------------------	-------

<b>Dichte bei 20 °C:</b>	1,24 g/cm <sup>3</sup>
--------------------------	------------------------

<b>Relative Dichte</b>	Nicht bestimmt.
------------------------	-----------------

<b>Dampfdichte</b>	Nicht anwendbar.
--------------------	------------------

<b>Verdampfungsgeschwindigkeit</b>	Nicht anwendbar.
------------------------------------	------------------

· **Löslichkeit in / Mischbarkeit mit**

<b>Wasser:</b>	Unlöslich.
----------------	------------

<b>Verteilungskoeffizient (n-Octanol/Wasser):</b>	Nicht bestimmt.
---	-----------------

· **Viskosität:**

<b>Dynamisch:</b>	Nicht anwendbar.
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<b>Kinematisch:</b>	Nicht anwendbar.
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· **Lösemittelgehalt:**

<b>Organische Lösemittel:</b>	0,0 %
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<b>VOC (EU)</b>	0,00 %
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<b>Festkörpergehalt:</b>	100,0 %
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**· 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.
- **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 vermutlich die Fruchtbarkeit beeinträchtigen.
- **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.
- **Ökotoxische Wirkungen:**
- **Bemerkung:**  
Sehr giftig für Fische.  
Giftig für Fische.
- **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.

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*In Gewässern auch giftig für Fische und Plankton.  
sehr giftig für Wasserorganismen  
giftig für Wasserorganismen*

- **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.

### ABSCHNITT 14: Angaben zum Transport

<ul style="list-style-type: none"> <li>· <b>14.1 UN-Nummer</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3106
<ul style="list-style-type: none"> <li>· <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3106 ORGANISCHES PEROXID TYP D, FEST, UMWELTGEFÄHRDEND ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT Organic peroxide type D, solid
<ul style="list-style-type: none"> <li>· <b>14.3 Transportgefahrenklassen</b></li> <li>· <b>ADR, IMDG</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">   </div>
<ul style="list-style-type: none"> <li>· <b>Klasse</b></li> <li>· <b>Gefahrzettel</b></li> </ul>	5.2 Organische Peroxide 5.2
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	<div style="display: flex; align-items: center; gap: 10px;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	5.2 Organische Peroxide 5.2
<ul style="list-style-type: none"> <li>· <b>14.4 Verpackungsgruppe</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	entfällt
<ul style="list-style-type: none"> <li>· <b>14.5 Umweltgefahren:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Besondere Kennzeichnung (ADR):</b></li> </ul>	Symbol (Fisch und Baum) Symbol (Fisch und Baum)

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· <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>	Achtung: Organische Peroxide
· <b>Kemler-Zahl:</b>	90
· <b>EMS-Nummer:</b>	F-J,S-R
· <b>Stowage Category</b>	D
· <b>Stowage Code</b>	SW1 Protected from sources of heat.
· <b>Segregation Code</b>	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.

· **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.

· **Transport/weitere Angaben:**

· <b>ADR</b>	
· <b>Begrenzte Menge (LQ)</b>	500 g
· <b>Freigestellte Mengen (EQ)</b>	Code: E0 In freigestellten Mengen nicht zugelassen
· <b>Beförderungskategorie</b>	2
· <b>Tunnelbeschränkungscode</b>	D

· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":** UN 3106 ORGANISCHES PEROXID TYP D, FEST, 5.2, UMWELTGEFÄHRDEND

### 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**  
P6a SELBSTZERSETZLICHE STOFFE UND GEMISCHE und ORGANISCHE PEROXIDE  
E1 Gewässergefährdend
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 10 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 50 t
- **Nationale Vorschriften:**
- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
- **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.

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*H319 Verursacht schwere Augenreizung.***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**vPvB: very Persistent and very Bioaccumulative**Self-react. B: Self-Reactive Substances and Mixtures, Type B**Org. Perox. B: Organic Peroxides, Type B**Org. Perox. CD: Organic Peroxides, Types C, D**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*

DE



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

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** TECHNOVIT 7100 - HARDENER 1
- **Articolo numero:** 14653(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: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: [www.sichim.com](http://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**



GHS01 GHS02 bomba che esplosione, fiamma

Self-react. B

H241 Rischio d'incendio o di esplosione per riscaldamento.



GHS08 pericolo per la salute

Repr. 2

H361f Sospettato di nuocere alla fertilità



GHS09 ambiente

Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.

Aquatic Chronic 2 H411 Tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

Eye Irrit. 2

H319 Provoca grave irritazione oculare.

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

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

**2.2 Elementi dell'etichetta****Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

**Pittogrammi di pericolo**

GHS01 GHS02 GHS07 GHS08 GHS09

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

perossido di dibenzoile

**Indicazioni di pericolo**

H241 Rischio d'incendio o di esplosione per riscaldamento.

H242 Rischio d'incendio per riscaldamento.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H361f Sospettato di nuocere alla fertilità

H400 Molto tossico per gli organismi acquatici.

H411 Tossico per gli organismi acquatici con effetti di lunga durata.

**Consigli di prudenza**

P210 Tenere lontano da fonti di calore, superfici riscaldate, scintille, fiamme e altre fonti di innesco. Vietato 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.

P321 Trattamento specifico (vedere su questa etichetta).

P405 Conservare sotto chiave.

P410 Proteggere dai raggi solari.

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	perossido di dibenzoile	25-50%
EINECS: 202-327-6	Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	

**Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

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#### **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.

· **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:**

CO<sub>2</sub>, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.

· **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:**

In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.

Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

Smaltimento del materiale contaminato conformemente al punto 13.

· **6.4 Riferimento ad altre sezioni**

Per informazioni relative ad un 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** Aprire e manipolare i recipienti con cautela.

· **Indicazioni in caso di incendio ed esplosione:**

Proteggere dal calore.

Tener pronto il respiratore.

· **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**

· **Stoccaggio:**

· **Requisiti dei magazzini e dei recipienti:** Conservare in ambiente fresco.

· **Indicazioni sullo stoccaggio misto:** Non necessario.

· **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**

Mantenere i recipienti ermeticamente chiusi.

Conservare in luogo fresco e asciutto in fusti ben chiusi.

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**Scheda di dati di sicurezza**  
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- Proteggere dal calore e dai raggi diretti del sole.  
· **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 <sup>3</sup>
A4	

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

- **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.  
Custodire separatamente l'equipaggiamento protettivo.  
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

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### SEZIONE 9: Proprietà fisiche e chimiche

#### · 9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali

##### · Indicazioni generali

##### · Aspetto:

**Forma:** Polvere

**Colore:** Bianco

· **Odore:** Caratteristico

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non applicabile.

##### · Cambiamento di stato

**Temperatura di fusione/ambito di fusione:** Non definito.

**Temperatura di ebollizione/ambito di ebollizione:** Non definito.

· **Punto di infiammabilità:** Non applicabile.

· **Infiammabilità (solido, gassoso):** Può provocare un incendio.

##### · Temperatura di accensione:

**Temperatura di decomposizione:** Non definito.

· **Autoaccensione:** Prodotto non autoinfiammabile.

· **Pericolo di esplosione:** Prodotto non esplosivo.  
Pericolo di esplosione per riscaldamento.

##### · Limiti di infiammabilità:

**Inferiore:** Non definito.

**Superiore:** Non definito.

· **Tensione di vapore a 20 °C:** 1 hPa

· **Densità a 20 °C:** 1.24 g/cm<sup>3</sup>

· **Densità relativa** Non definito.

· **Densità del vapore** Non applicabile.

· **Velocità di evaporazione** Non applicabile.

##### · Solubilità in/Miscibilità con acqua:

Insolubile.

· **Coefficiente di distribuzione (n-Octanol/acqua):** Non definito.

##### · Viscosità:

**Dinamica:** Non applicabile.

**Cinematica:** Non applicabile.

##### · Tenore del solvente:

**Solventi organici:** 0.0 %

**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.

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**Scheda di dati di sicurezza**  
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- **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.
- **Tossicità per la riproduzione**  
Sospettato di nuocere alla fertilità
- **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.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:**  
Molto tossico per i pesci.  
Tossico per i pesci.
- **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.  
Tossico per pesci e plancton.  
Molto tossico per gli organismi acquatici  
tossico per gli organismi acquatici
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

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**Scheda di dati di sicurezza**  
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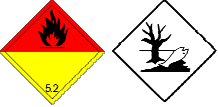

Denominazione commerciale: **TECHNOVIT 7100 - HARDENER 1**

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### 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

· <b>14.1 Numero ONU</b> · <b>ADR, IMDG, IATA</b>	UN3106
· <b>14.2 Nome di spedizione dell'ONU</b> · <b>ADR</b>  · <b>IMDG</b>  · <b>IATA</b>	3106 PEROSSIDO ORGANICO DI TIPO D, SOLIDO, PERICOLOSO PER L'AMBIENTE ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT Organic peroxide type D, solid
· <b>14.3 Classi di pericolo connesso al trasporto</b> · <b>ADR, IMDG</b>	
	
· <b>Classe</b> · <b>Etichetta</b>	5.2 Perossidi organici 5.2
· <b>IATA</b>	
	
· <b>Class</b> · <b>Label</b>	5.2 Perossidi organici 5.2
· <b>14.4 Gruppo di imballaggio</b> · <b>ADR, IMDG, IATA</b>	non applicabile
· <b>14.5 Pericoli per l'ambiente:</b> · <b>Marine pollutant:</b> · <b>Marcatura speciali (ADR):</b>	Simbolo (pesce e albero) Simbolo (pesce e albero)
· <b>14.6 Precauzioni speciali per gli utilizzatori</b> · <b>Numero Kemler:</b> · <b>Numero EMS:</b> · <b>Stowage Category</b> · <b>Stowage Code</b> · <b>Segregation Code</b>	Attenzione: Perossidi organici 90 F-J,S-R D SW1 Protected from sources of heat. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>	Non applicabile.

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**Scheda di dati di sicurezza**  
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**· 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

**· IMDG****· Limited quantities (LQ)**

5 kg

**· Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

**· UN "Model Regulation":**UN 3106 PEROSSIDO ORGANICO DI TIPO D, SOLIDO, 5.2,  
PERICOLOSO PER L'AMBIENTE**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**

P6a SOSTANZE E MISCELE AUTOREATTIVE e PEROSSIDI ORGANICI

E1 Pericoloso per l'ambiente acquatico

**· Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 10 t****· Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 50 t****· 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.

**· Frasi rilevanti**

H241 Rischio d'incendio o di esplosione per riscaldamento.

H317 Può provocare una reazione allergica cutanea.

H319 Provoca grave irritazione oculare.

**· 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

vPvB: very Persistent and very Bioaccumulative

Self-react. B: Self-Reactive Substances and Mixtures, Type B

Org. Perox. B: Organic Peroxides, Type B

Org. Perox. CD: Organic Peroxides, Types C, D

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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

Stampato il: 31.12.2015

Revisione: 31.12.2015

**Denominazione commerciale: TECHNOVIT 7100 - HARDENER 1***Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*

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IT

# 안전지침서

제조조의와 7/2006/E에 따라라따

기압점: 2015.12.31

개정: 2015.12.31

## 1 화학제품과 회사에 관한 정보

제품제품제자

· 제품명: **TECHNOVIT 7100 - HARDENER 1**

· 상품번호: 14653(H1)

해당해당물질이나 혼합물(관련관련용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.

· 제품의 권고 용도와 사용 형태에 대한 제한사항 없음

· 안전데이터표(Safety Data Sheet)내 공급업체 관련 정보

· 제조자/수입자/유통업체 정보

Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: info@emsdiasum.com  
www.emsdiasum.com

Samchang Commercial Co., Ltd.  
Yeo Eui Do  
PO Box 1110  
Seoul, Korea  
Tel: 82 2 703 3040  
Fax: 82 2 717 3298

· 추가적인 정보: 독성 시험 가능 (conduct safety department)

· 비상연락 전화번호:

ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 유해성.위험성

· 순물질 또는 혼합물 분류분류



폭발, 화염

자기반응성 물질 및 혼합물 형식B H241 가열하면 화재 또는 폭발할 수 있음



화염

유기과산화물 형식H242 가열하면 화재를 일으킬 수 있음



건강에 위험

생식 독성 구분2 H361 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨



환경

수생환경유해성-급성 구분1 H400 수생생물에 매우 유독함

수생환경유해성-만성 구분2 H411 장기적인 영향에 의해 수생생물에게 유독함

(2 쪽에 계속)

# 안전지침서

제조조의와 2006/2006/E에 따라라따

기압점: 2015.12.31

개정: 2015.12.31

제품명: TECHNOVIT 7100 - HARDENER 1

(1 쪽부터계속)



심한 눈 손상/자극성 구분2 H319 눈에 심한 자극을 일으킴  
피부과민성 구분1 H317 알레르기성 피부 반응을 일으킬 수 있음

· 라벨 표기 요소요소

· 라벨 라벨 요소

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

· 그림문자



GHS01 GHS02 GHS07 GHS08 GHS09

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

dibenzoyl peroxide

유해 위험 문구

- 가열하면 화재 또는 폭발할 수 있음
- 가열하면 화재를 일으킬 수 있음
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨
- 수생생물에 매우 유독함
- 장기적인 영향에 의해 수생생물에게 유독함

· 예방 조치 문구문구

- 열, 스파크, 화염, 고열로부터 멀리하십시오 - 금연
- 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.
- (라벨 참조) 처치를 하십시오.
- 잠금장치가 있는 저장장소에 저장 하십시오.
- 햇빛 차단 필요.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

기타기타 유해성

- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음
- PBT(잔류성, 생물농축성, 독성물질)에 해당하지 않음.
- vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.

### 3 구성성분의 명칭 및 함유량

· 화학적 특성: 혼합물

설명설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· 위험 요소요소

94-36-0	dibenzoyl peroxide	25-50%
	유기과산화물 형식B, H241;  심한 눈 손상/자극성 구분2, H319; 피부과민성 구분1, H317	

KR

(3 쪽에계속)



# 안전지침서

## 제조의약품/2006/ER에 따라라따

기압점: 2015.12.31

개정: 2015.12.31

**제품명: TECHNOVIT 7100 - HARDENER 1**

(3 쪽부터계속)

· **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

### 8 노출방지 및 개인보호구

· **첨단시설 디자 인에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시 오.

통제 ~~통제~~ ~~통제~~ 변수

· **화학물질의 노출기준, 생물학적 노출기준 등:**

**94-36-0 dibenzoyl peroxide**

TLV (KR) 장기간의값: 5 mg/m<sup>3</sup>

PEL (US) 장기간의값: 5 mg/m<sup>3</sup>

REL (US) 장기간의값: 5 mg/m<sup>3</sup>

TLV (US) 장기간의값: 5 mg/m<sup>3</sup>

· **추가정보** 정보 할 당시에 유 효 한 목 록을 기초로 사용했다.

노출 ~~노출~~ ~~노출~~ 통제

개인 ~~개인~~ ~~개인~~ 보호구

· **일반적보호조치및위생조치:**

· 식료품, 음료수와 사료로부터 멀리 떨어져 뜨려 놓는다.

· 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.

· 휴식 전 이 나 작업이 끝날때마다 손을 씻는다.

· 방호복은 따로 보관한다.

· 눈과의 접촉을 피한다.

· 눈과 피부와의 접촉은 피한다.

· **호흡기 보호** 필요없음.

**보충 보호** 보호



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.

테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.

투과 시간, 침투율 과 저하를 고 려해서 장 갑 재 료를 선택한다.

· **장갑의재료**

적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

· **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

**보충 보호** 보호



확조이는보안경

KR

(5 쪽에계속)

# 안전지침서

제조조의와 2006/EC에 따라라따

기압점: 2015.12.31

개정: 2015.12.31

**제품명: TECHNOVIT 7100 - HARDENER 1**

(4 쪽부터계속)

## 9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

· 일반정보	
외형외형의형	가루
· 물량계상 상태	하얀
· 색:	특색있는
냄새냄새냄새	알맞지않다.
· 후각역치	
· pH:	해당사항 없음.
· 상태변화	
· 녹는점/어는점:	맞지않는
초기초기 녹는 점과 끓는점범위범위	맞지않는
· 인화점:	해당사항 없음.
· 인화성고체고체기체	화제를 야기시킬수있는가
· 점화온도:	
분해온도온도	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다 온도가상승할경우폭발위험성이있는
인화 인화 인화 폭발 위험의 상한하한	하한
· 아래로:	알맞지않다.
위로위로위로	알맞지않다.
· 증기압 의 경우 20 °C:	1 hPa
밀도 밀도 밀도 경우 20 °C:	1.24 g/cm <sup>3</sup>
비중 비중 비중	알맞지않다.
· 증기밀도:	해당사항 없음.
증발 증발 증발 속도	해당사항 없음.
· 용해도:	
· 물:	불용해성의
· n 옥탄올/물 분배계수:	알맞지않다.
점도 점도 점도	
· 역학성:	해당사항 없음.
· 동점성:	해당사항 없음.
· 용매내용물	
· 유기용매:	0.0 %
· VOC (EU)	0.00 %
· 고체양 함량 함량	100.0 %
기타 정보 정보	추가적인 정보가 존재하지 않습니다.

## 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 유해 환경의 가능성 / 피해 야할 조건 조건에 따라 사용 할 경우 해체는 없다

(6 쪽에 계속)







# 안전지침서

## 제조조의 위험성/2006/E에 따라

기압점: 2015.12.31

개정: 2015.12.31

**제품명: TECHNOVIT 7100 - HARDENER 1**

(7 쪽부터 계속)

<p>· <b>운송/추가정보</b></p>	
<p>· ADR 한정량/제한량 (수량)</p>	<p>500 g Code: E0 Not permitted as Excepted Quantity</p>
<p>· Excepted quantities (EQ)</p>	<p>Not permitted as Excepted Quantity</p>
<p>운송 위험성 구분 터널 제한 코드</p>	<p>2 D</p>
<p>· IMDG</p>	
<p>· Limited quantities (LQ)</p>	<p>5 kg</p>
<p>· Excepted quantities (EQ)</p>	<p>Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g</p>
<p>· UN번호/위험성류</p>	<p>UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, ENVIRONMENTALLY HAZARDOUS</p>

### 15 법적 규제 현황

해당 해당 수물질 또는 혼합물에 대한 국내외 법적 규제 현황을 요약한 법률

<p>· Korean Existing Chemical Inventory</p>		
94-36-0	dibenzoyl peroxide	KE-09889
84-61-7	dicyclohexyl phthalate	KE-02215

· **라벨링 요소**

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

· **그림문자**



GHS01   GHS02   GHS07   GHS08   GHS09

· **신호어 위험**

· **상표상에 명확히 위험성이 표시된 성분:**

dibenzoyl peroxide

· **유해/유해/유해 문구**

- 가열하면 화재 또는 폭발할 수 있음
- 가열하면 화재를 일으킬 수 있음
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨
- 수생생물에 매우 유독함
- 장기적인 영향에 의해 수생생물에게 유독함

· **예방 조치 문구**

- 열·스파크·화염·고열로부터 멀리하시오 - 금연
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으시오.
- (라벨 참조) 처치를 하시오.
- 잠금장치가 있는 저장장소에 저장하시오.
- 햇빛 차단 필요.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

(9 쪽에 계속)

# 안전지침서

## 제조조의위번호/2006/E라에 따라라따

기압점: 2015.12.31

개정: 2015.12.31

**제품명: TECHNOVIT 7100 - HARDENER 1**

(8 쪽부터계속)

· **화학물질 안전성 평가** 화학물질 안전성 평가가 수행되지 않음

### 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은 기술하지않았으며계약적인법률관계에기반을두고있지도않다

최초 최초 작성일자: 2015.12.31

개정 개정 일자: 1 / 2015.12.31

· **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

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

자기반응성 물질 및 혼합물 형식B: Self-Reactive Substances and Mixtures, Type B

유기과산화물 형식B: Organic Peroxides, Type B

유기과산화물 형식CD: Organic Peroxides, Types C, D

한심심한유해성(자극)분류 Serious eye damage/eye irritation, Hazard Category 2

한심심한유해성(자극)분류 Serious eye damage/eye irritation, Hazard Category 2

피부과민형구분 Sensitisation - Skin, Hazard Category 1

식생생식독성분류 Reproductive toxicity, Hazard Category 2

수생환경유해성(급)분류 Hazardous to the aquatic environment - Acute Hazard, Category 1

수생환경유해성(만)분류 Hazardous to the aquatic environment - Chronic Hazard, Category 2

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 31.12.2015

Revisión: 31.12.2015

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** TECHNOVIT 7100 - HARDENER 1

· **Número del artículo:** 14653(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: [info@emsdiasum.com](mailto:info@emsdiasum.com)

[www.emsdiasum.com](http://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](mailto: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**



GHS01 GHS02 bomba explotando, llama

Self-react. B

H241 Peligro de incendio o explosión en caso de calentamiento.



GHS08 peligro para la salud

Repr. 2

H361f Se sospecha que perjudica a la fertilidad.



GHS09 medio ambiente

Aquatic Acute 1

H400 Muy tóxico para los organismos acuáticos.

Aquatic Chronic 2

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

Eye Irrit. 2

H319 Provoca irritación ocular grave.

( se continua en página 2 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 31.12.2015

Revisión: 31.12.2015

Nombre comercial: **TECHNOVIT 7100 - HARDENER 1**

( se continua en página 1 )

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

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

### · 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.

#### · Pictogramas de peligro



GHS01 GHS02 GHS07 GHS08 GHS09

#### · Palabra de advertencia Peligro

#### · Componentes peligrosos a indicar en el etiquetaje:

peróxido de dibenzoilo

#### · Indicaciones de peligro

H241 Peligro de incendio o explosión en caso de calentamiento.

H242 Peligro de incendio en caso de calentamiento.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H361f Se sospecha que perjudica a la fertilidad.

H400 Muy tóxico para los organismos acuáticos.

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

#### · 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.

P321 Se necesita un tratamiento específico (ver en esta etiqueta).

P405 Guardar bajo llave.

P410 Proteger de la luz del sol.

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	peróxido de dibenzoilo	25-50%
EINECS: 202-327-6	Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	

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

ES

( se continua en página 3 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 31.12.2015

Revisión: 31.12.2015

Nombre comercial: **TECHNOVIT 7100 - HARDENER 1**

( se continua en página 2 )

### 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.
- **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:**  
CO<sub>2</sub>, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **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:**  
Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.  
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
Desechar el material contaminado como vertido según ítem 13.
- **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** Abrir y manejar el recipiente con cuidado.
- **Prevención de incendios y explosiones:**  
Proteger del calor.  
Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** Almacenar en un lugar fresco.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.  
Almacenarlo en envases bien cerrados en un lugar fresco y seco.

( se continua en página 4 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 31.12.2015

Revisión: 31.12.2015

**Nombre comercial: TECHNOVIT 7100 - HARDENER 1**

( se continua en página 3 )

Proteger del calor y de la luz directa del sol.

· **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.

· **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 <sup>3</sup>
	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.

Guardar la ropa protectora por separado.

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

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### SECCIÓN 9: Propiedades físicas y químicas

#### · 9.1 Información sobre propiedades físicas y químicas básicas

##### · Datos generales

##### · Aspecto:

**Forma:** En polvo

**Color:** Blanco

· **Olor:** Característico

· **Umbral olfativo:** No determinado.

· **valor pH:** No aplicable.

##### · Cambio de estado

**Punto de fusión /campo de fusión:** Indeterminado.

**Punto de ebullición /campo de ebullición:** Indeterminado.

· **Punto de inflamación:** No aplicable.

· **Inflamabilidad (sólido, gaseiforme):** Puede provocar incendios.

##### · Temperatura de ignición:

**Temperatura de descomposición:** No determinado.

· **Autoinflamabilidad:** El producto no es autoinflamable.

· **Peligro de explosión:** El producto no es explosivo.  
Peligro de explosión en caso de calentamiento.

##### · Límites de explosión:

**Inferior:** No determinado.

**Superior:** No determinado.

· **Presión de vapor a 20 °C:** 1 hPa

· **Densidad a 20 °C:** 1,24 g/cm<sup>3</sup>

· **Densidad relativa** No determinado.

· **Densidad de vapor** No aplicable.

· **Velocidad 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:

**Disolventes orgánicos:** 0,0 %

**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.

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- **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.
- **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**  
Se sospecha que perjudica a la fertilidad.
- **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.
- **Efectos ecotóxicos:**
- **Observación:**  
Muy tóxico para peces.  
Tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 1 (autoclasificación): 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.  
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.  
muy tóxico para organismos acuáticos  
tóxico para organismos acuáticos
- **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.

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### 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

- |   |  |
|---|--|
| · <b>14.1 Número ONU</b><br>· <b>ADR, IMDG, IATA</b>  | UN3106   |
| · <b>14.2 Designación oficial de transporte de las Naciones Unidas</b><br>· <b>ADR</b><br><br>· <b>IMDG</b><br><br>· <b>IATA</b>  | 3106 PERÓXIDO ORGÁNICO SÓLIDO TIPO D,<br>PELIGROSO PARA EL MEDIO AMBIENTE<br>ORGANIC PEROXIDE TYPE D, SOLID, MARINE<br>POLLUTANT<br>Organic peroxide type D, solid     |
| · <b>14.3 Clase(s) de peligro para el transporte</b><br>· <b>ADR, IMDG</b>  |  |
|                             |  |
| · <b>Clase</b><br>· <b>Etiqueta</b>   | 5.2 Peróxidos orgánicos<br>5.2   |
| · <b>IATA</b>   |  |
|    |  |
| · <b>Class</b><br>· <b>Label</b>  | 5.2 Peróxidos orgánicos<br>5.2   |
| · <b>14.4 Grupo de embalaje</b><br>· <b>ADR, IMDG, IATA</b>   | suprimido  |
| · <b>14.5 Peligros para el medio ambiente:</b><br>· <b>Contaminante marino:</b><br>· <b>Marcado especial (ADR):</b>   | Símbolo (pez y árbol)<br>Símbolo (pez y árbol)   |
| · <b>14.6 Precauciones particulares para los usuarios</b><br>· <b>Número Kemler:</b><br>· <b>Número EMS:</b><br>· <b>Stowage Category</b><br>· <b>Stowage Code</b><br>· <b>Segregation Code</b> | Atención: Peróxidos orgánicos<br>90<br>F-J,S-R<br>D<br>SW1 Protected from sources of heat.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| · <b>14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC</b>   | No aplicable.  |

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· **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

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **"Reglamentación Modelo" de la UNECE:**

UN 3106 PERÓXIDO ORGÁNICO SÓLIDO TIPO D, 5.2,  
PELIGROSO PARA EL MEDIO AMBIENTE

### 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**  
P6a SUSTANCIAS Y MEZCLAS QUE REACCIONAN ESPONTÁNEAMENTE y PERÓXIDOS ORGÁNICOS  
E1 Peligroso para el medio ambiente acuático
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 10 t**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 50 t**
- **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.

· **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

vPvB: very Persistent and very Bioaccumulative

Self-react. B: Self-Reactive Substances and Mixtures, Type B

Org. Perox. B: Organic Peroxides, Type B

Org. Perox. CD: Organic Peroxides, Types C, D

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1*

*Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*

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