

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/18/2016

Reviewed on 01/18/2016

## 1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 4000 POWDER
- **Article number:** 14656-02(P), 14656-03(P)
- **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.



GHS08 Health hazard

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

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



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

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

dibenzoyl peroxide

- **Hazard statements**

Heating may cause a fire or explosion.

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*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

*Causes damage to organs through prolonged or repeated exposure.*

**· Precautionary statements**

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

*Do not breathe dust/fume/gas/mist/vapors/spray.*

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

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

*Keep only in original container.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*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.*

*Get medical advice/attention if you feel unwell.*

*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.*

*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 = 4

*The substance possesses oxidizing properties.*

**· HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 4

**· 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.

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**· Dangerous components:**

14808-60-7	Quartz (SiO <sub>2</sub> )	50-100%
94-36-0	dibenzoyl peroxide	2,5-10%

## 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.

· **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** Remove persons from danger area.

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

**· Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

**· 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**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

**· Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Prevent impact and friction.

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

### 14808-60-7 Quartz (SiO<sub>2</sub>)

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m <sup>3</sup> *as respirable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **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:** Goggles recommended during refilling.

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## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Powder
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

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

· **Danger of explosion:** Product does not present an explosion hazard.  
Extreme risk of explosion by shock, friction, fire or other sources of ignition.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 2.65 g/cm<sup>3</sup> (22.114 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Solvent content:**

Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gl

Solids content: 95.0 %

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

## 10 Stability and reactivity

· **Reactivity** No further relevant information available.

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- **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:** No 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)**

14808-60-7	Quartz (SiO <sub>2</sub> )	1
94-36-0	dibenzoyl peroxide	3

- **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO <sub>2</sub> )	K
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- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

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

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## 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

- |  |   |
|--|---|
| · <b>Environmental hazards:</b>  | Not applicable.   |
| · <b>Special precautions for user</b>  | Not applicable.   |
| · <b>Stowage Category</b>  | D   |
| · <b>Stowage Code</b>  | SW1 Protected from sources of heat.   |
| · <b>Segregation Code</b>  | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>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>DOT</b>   |   |
| · <b>Quantity limitations</b>  | On passenger aircraft/rail: Forbidden<br>On cargo aircraft only: Forbidden  |
| · <b>UN "Model Regulation":</b>  | Void  |

## 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:**

14808-60-7 | Quartz (SiO<sub>2</sub>)

### · **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)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
94-36-0	dibenzoyl peroxide	A4

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**
14808-60-7 Quartz (SiO<sub>2</sub>)
**· 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.**Causes serious eye irritation.**May cause an allergic skin reaction.**Suspected of damaging fertility or the unborn child.**Causes damage to organs through prolonged or repeated exposure.*
**· Precautionary statements**
*Keep away from heat/sparks/open flames/hot surfaces. No smoking.**Do not breathe dust/fume/gas/mist/vapors/spray.**Keep/Store away from clothing/combustible materials.**Wear protective gloves / eye protection / face protection.**Keep only in original container.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**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.**Get medical advice/attention if you feel unwell.**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.*

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*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.*

· **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** 01/18/2016 / -

· **Abbreviations and acronyms:**

*DOT: US Department of Transportation*

*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*

*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*

*STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1*

US

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

Printing date 18.01.2016

Revision: 18.01.2016

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

- **Product identifier**
- **Trade name:** TECHNOVIT 4000 POWDER
- **Article number:** 14656-02(P), 14656-03(P)
- **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.



GHS08 health hazard

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

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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

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AU

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.01.2016

Revision: 18.01.2016

Trade name: **TECHNOVIT 4000 POWDER**

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- **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.*

*Causes serious eye irritation.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

*Causes damage to organs through prolonged or repeated exposure.*

- **Precautionary statements**

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

*Do not breathe dust/fume/gas/mist/vapours/spray.*

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

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

*Keep only in original container.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*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.*

*Get medical advice/attention if you feel unwell.*

*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.*

*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.

- **vPvB:** Not applicable.

AU

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# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.01.2016

Revision: 18.01.2016

Trade name: **TECHNOVIT 4000 POWDER**

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### 3 Composition/information on ingredients

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

- **Dangerous components:**

14808-60-7	Quartz (SiO <sub>2</sub> )	50-100%
94-36-0	dibenzoyl peroxide	2,5-10%

- **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.
- **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** Remove persons from danger area.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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**  
Ensure good ventilation/exhaustion at the workplace.

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**Safety data sheet**  
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*Open and handle receptacle with care.*

*Prevent formation of aerosols.*

**· Information about fire - and explosion protection:**

*Keep ignition sources away - Do not smoke.*

*Prevent impact and friction.*

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

**· Storage:**

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

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

**· Further information about storage conditions:**

*Keep container tightly sealed.*

*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:**

**14808-60-7 Quartz (SiO<sub>2</sub>)**

NES	Long-term value: 0.1 mg/m <sup>3</sup> respirable dust
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**· Additional information:** *The lists valid during the making were used as basis.*

**· Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

*Immediately remove all soiled and contaminated clothing*

*Wash hands before breaks and at the end of work.*

**· Respiratory protection:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*

**· 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.*

(Contd. on page 5)

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

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Trade name: **TECHNOVIT 4000 POWDER**

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· **Eye protection:** Goggles recommended during refilling

### 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· <b>Form:</b>	Powder
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

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

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product does not present an explosion hazard.  
Extreme risk of explosion by shock, friction, fire or other sources of ignition.

· **Explosion limits:**

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

· **Vapour pressure:** Not determined.

· <b>Density at 20 °C:</b>	2.65 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

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

· **Viscosity:**

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

· **Solvent content:**

· <b>Organic solvents:</b>	0.0 %
· <b>VOC (EC)</b>	0.00 %

· **Solids content:** 95.0 %

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

AU

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# Safety data sheet

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

Printing date 18.01.2016

Revision: 18.01.2016

Trade name: **TECHNOVIT 4000 POWDER**

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

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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**Safety data sheet**  
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

- |   |   |
|---|---|
| · <b>Environmental hazards:</b>   | Not applicable.   |
| · <b>Special precautions for user</b>                                       | Not applicable.   |
| · <b>Stowage Category</b>   | D   |
| · <b>Stowage Code</b>   | SW1 Protected from sources of heat.   |
| · <b>Segregation Code</b>   | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| · <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.   |
| · <b>UN "Model Regulation":</b>   | Void  |

**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.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

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

Do not breathe dust/fume/gas/mist/vapours/spray.

Keep/Store away from clothing/combustible materials.

Wear protective gloves / eye protection / face protection.

Keep only in original container.

Wash thoroughly after handling.

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

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**Trade name: TECHNOVIT 4000 POWDER**

(Contd. of page 7)

- Do not eat, drink or smoke when using this product.  
 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.  
 Get medical advice/attention if you feel unwell.  
 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.  
 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:

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  
 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  
 STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/18/2016

Reviewed on 01/18/2016

## 1 Identification

- **Product identifier**
- **Trade name:** TECHNOVIT 4000 POWDER
- **Article number:** 14656-02(P), 14656-03(P)
- **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.



GHS08 Health hazard

Reproductive Toxicity - Category 2

H361 Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure - Category 1

H372 Causes damage to organs through prolonged or repeated exposure.



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

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CA

# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 01/18/2016

**Trade name: TECHNOVIT 4000 POWDER**

(Contd. of page 1)

· **Hazard statements**

- Heating may cause a fire or explosion.
- Causes serious eye irritation.
- May cause an allergic skin reaction.
- Suspected of damaging fertility or the unborn child.
- Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not breathe 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.
- Do not eat, drink or smoke when using this product.
- 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.
- Get medical advice/attention if you feel unwell.
- IF ON SKIN: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.
- Store locked up.
- 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
- D2B - Toxic material causing other toxic effects
- F - Dangerously reactive material



· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 4

The substance possesses oxidizing properties.

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Trade name: **TECHNOVIT 4000 POWDER**

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

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	4	Reactivity = 4

- **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:**

14808-60-7	Quartz (SiO <sub>2</sub> )	60-100% w/w
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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.
- **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** Remove persons from danger area.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.

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**Trade name: TECHNOVIT 4000 POWDER**

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See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
 Keep ignition sources away - Do not smoke.  
 Prevent impact and friction.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Keep receptacle tightly sealed.  
 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:**

### 14808-60-7 Quartz (SiO<sub>2</sub>)

EL	Long-term value: 0.025 mg/m <sup>3</sup> ACGIH A2; IARC 1
EV	Long-term value: 0.10* mg/m <sup>3</sup> *respirable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **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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# Safety Data Sheet

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Reviewed on 01/18/2016

Trade name: **TECHNOVIT 4000 POWDER**

(Contd. of page 4)

*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:** Goggles recommended during refilling.

## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

<b>Form:</b>	Powder
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

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

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not flammable.

- **Ignition temperature:**

**Decomposition temperature:** Not determined.

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

- **Danger of explosion:** Product does not present an explosion hazard.  
Extreme risk of explosion by shock, friction, fire or other sources of ignition.

- **Explosion limits:**

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

- **Vapor pressure:** Not determined.

<b>Density at 20 °C:</b>	2.65 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

- **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

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

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# Safety Data Sheet

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Trade name: **TECHNOVIT 4000 POWDER**

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<b>· Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>· Solids content:</b>	
	95.0 %
<b>· Other information</b>	
	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:** No 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)**

14808-60-7	Quartz (SiO <sub>2</sub> )	1
94-36-0	dibenzoyl peroxide	3

- **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO <sub>2</sub> )	K
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- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

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

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/18/2016

Reviewed on 01/18/2016

Trade name: **TECHNOVIT 4000 POWDER**

(Contd. of page 6)

- **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

- |  |   |
|--|---|
| · <b>Environmental hazards:</b>  | Not applicable.   |
| · <b>Special precautions for user</b>  | Not applicable.   |
| · <b>Stowage Category</b>  | D   |
| · <b>Stowage Code</b>  | SW1 Protected from sources of heat.   |
| · <b>Segregation Code</b>  | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>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>DOT</b>   |   |
| · <b>Quantity limitations</b>  | On passenger aircraft/rail: Forbidden<br>On cargo aircraft only: Forbidden  |
| · <b>UN "Model Regulation":</b>  | Void  |

## 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:**

14808-60-7 | Quartz (SiO<sub>2</sub>)

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Trade name: **TECHNOVIT 4000 POWDER**

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· **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)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
94-36-0	dibenzoyl peroxide	A4

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

14808-60-7 Quartz (SiO<sub>2</sub>)

· **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%)**

14808-60-7 Quartz (SiO<sub>2</sub>)

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.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

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

Do not breathe 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.

(Contd. on page 9)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 01/18/2016

Reviewed on 01/18/2016

**Trade name: TECHNOVIT 4000 POWDER**

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Do not eat, drink or smoke when using this product.  
 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.  
 Get medical advice/attention if you feel unwell.  
 IF ON SKIN: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 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** 01/18/2016 / -

· **Abbreviations and acronyms:**

DOT: US Department of Transportation  
 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**

**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**

**Specific Target Organ Toxicity - Repeated Exposure - Category 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1**

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

Printing date 18.01.2016

Revision: 18.01.2016

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

- **1.1 Product identifier**
- **Trade name:** TECHNOVIT 4000 POWDER
- **Article number:** 14656-02(P), 14656-03(P)
- **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.

STOT RE 1      H372 Causes damage to organs through prolonged or repeated exposure.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.



GHS07

Eye Irrit. 2      H319 Causes serious eye irritation.

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

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

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

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labelling:***dibenzoyl peroxide*· **Hazard statements***H241 Heating may cause a fire or explosion.**H319 Causes serious eye irritation.**H317 May cause an allergic skin reaction.**H361f Suspected of damaging fertility.**H372 Causes damage to organs through prolonged or repeated exposure.**H400 Very toxic to aquatic life.**H412 Harmful 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.**P260 Do not breathe dust/fume/gas/mist/vapours/spray.**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.**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	2,5-10%
EINECS: 202-327-6	Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 84-61-7	dicyclohexyl phthalate	2,5-10%
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.

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- **After eye contact:** Rinse opened eye for several minutes under running water.
- **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** Remove persons from danger area.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Prevent impact and friction.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
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.

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

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **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:** Goggles recommended during refilling

## SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Powder**Colour:** Colourless· **Odour:** Odourless· **Odour threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition****Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** Undetermined.· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Not applicable.

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· <b>Ignition temperature:</b>	
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard. Extreme risk of explosion by shock, friction, fire or other sources of ignition.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density at 20 °C:</b>	2.65 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	95.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.

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- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **CMR effects (carcinogenity, 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**  
Causes damage to organs through prolonged or repeated exposure.
- **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

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

### SECTION 14: Transport information

- |  |   |
|--|---|
| · <b>14.5 Environmental hazards:</b>   | Not applicable.   |
| · <b>14.6 Special precautions for user</b>                                       | Not applicable.   |
| · <b>Stowage Category</b>  | D   |
| · <b>Stowage Code</b>  | SW1 Protected from sources of heat.   |
| · <b>Segregation Code</b>  | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.   |

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· UN "Model Regulation":

Void

### 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:**  
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  
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  
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 18.01.2016

Herziening van: 18.01.2016

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

### · 1.1 Productidentificatie

· Handelsnaam: **TECHNOVIT 4000 POWDER**

· Artikelnummer: 14656-02(P), 14656-03(P)

### · 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](mailto:info@emsdiasum.com)

[www.emsdiasum.com](http://www.emsdiasum.com)

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: [info@aurion.nl](mailto: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.

STOT RE 1 H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.



GHS09 milieu

Aquatic Acute 1 H400 Zeer giftig voor in het water levende organismen.



GHS07

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

(Vervolg op blz. 2)

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

*Aquatic Chronic 3 H412 Schadelijk voor in het water levende organismen, met langdurige gevolgen.*

### 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.

H319 Veroorzaakt ernstige oogirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H361f Wordt ervan verdacht de vruchtbaarheid te schaden.

H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.

H400 Zeer giftig voor in het water levende organismen.

H412 Schadelijk 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.

P260 Stof/rook/gas/nevel/damp/spuitnevel niet inademen.

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.

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: 14808-60-7 EINECS: 238-878-4	kwarts (SiO <sub>2</sub> ) stof waarvoor binnen de Gemeenschap een blootstellingsgrens op de werkvloer geldt	50-100%
CAS: 94-36-0 EINECS: 202-327-6	dibenzoylperoxide Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

(Vervolg op blz. 3)

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**· Aanvullende gegevens:**

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

**RUBRIEK 4: Eerstehulpmaatregelen****· 4.1 Beschrijving van de eerstehulpmaatregelen****· Na het inademen:**

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

*Bij bewusteloosheid ligging en vervoer in stabiele zijligging.*

**· Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.****· Na oogcontact: Ogen bij geopend ooglid meerdere minuten met stromend water spoelen****· 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 brandweertieners****· 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**

*Personen in veiligheid brengen.*

**· 6.2 Milieuvoorzorgsmaatregelen:** *Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.***· 6.3 Insluifings- en reinigingsmethoden en -materiaal:**

*Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.*

*Voor voldoende ventilatie zorgen.*

**· 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**

*Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.*

*Tanks voorzichtig openen en behandelen.*

*Aërosolvorming vermijden.*

**· Informatie m.b.t. brand- en ontploffingsgevaar:**

*Onststekingsbronnen op afstand houden - niet roken.*

*Stoten en schuren vermijden.*

(Vervolg op blz. 4)

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(Vervolg van blz. 3)

- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:**  
Tanks ondoordringbaar gesloten houden.  
Tegen hitte en directe zonnestralen 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:**

**14808-60-7 kwarts (SiO<sub>2</sub>)**

WGW	Lange termijn waarde: 0,075 mg/m <sup>3</sup> Geldt voor respirabel stof
-----	---

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.
- **Ademhalingsbescherming:**  
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **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 chemicaliën-mengsel 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:** Bij het omgieten is het gebruik van een veiligheidsbril aan te bevelen.

NL

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

### RUBRIEK 9: Fysische en chemische eigenschappen

#### · 9.1 Informatie over fysische en chemische basiseigenschappen

##### · Algemene gegevens

##### · Voorkomen:

Vorm:	Poeder
Kleur:	Kleurloos
· Reuk:	Reukloos
· Geurdrempelwaarde:	Niet bepaald.

· pH-waarde: Niet bepaald.

##### · Toestandsverandering

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

· Vlampunt: Niet bruikbaar.

· Ontvlambaarheid (vast, gasvormig): Niet bruikbaar.

##### · Ontstekingstemperatuur:

Ontbindingstemperatuur: Niet bepaald.

· Zelfontsteking: Het produkt ontbrandt niet uit zichzelf.

· Ontploffingsgevaar: Het produkt is niet ontploffingsgevaarlijk.  
Ernstig ontploffingsgevaar door schok, wrijving, vuur of andere ontstekingsoorzaken.

##### · Ontploffingsgrenzen:

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· Dampspanning: Niet bepaald.

Dichtheid bij 20 °C:	2,65 g/cm <sup>3</sup>
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.

##### · Oplosbaarheid in/mengbaarheid met

Water: Niet resp. gering mengbaar.

· Verdelingscoëfficiënt (n-octanol/water): Niet bepaald.

##### · Viscositeit

Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.

##### · Oplosmiddelgehalte:

Organisch oplosmiddel:	0,0 %
VOC (EG)	0,00 %

Gehalte aan vaste bestanddelen: 95,0 %

· 9.2 Overige informatie: Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

· 10.1 Reactiviteit: Geen verdere relevante informatie verkrijgbaar.

(Vervolg op blz. 6)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

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(Vervolg van blz. 5)

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

### RUBRIEK 11: Toxicologische informatie

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

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL) 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.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.

(Vervolg op blz. 7)

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- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.

## RUBRIEK 14: Informatie met betrekking tot het vervoer

- |   |   |
|---|---|
| · <b>14.5 Milieugevaren:</b>  | Niet bruikbaar.   |
| · <b>14.6 Bijzondere voorzorgen voor de gebruiker</b>                             | Niet bruikbaar.   |
| · <b>Stowage Category</b>   | D   |
| · <b>Stowage Code</b>   | SW1 Protected from sources of heat.   |
| · <b>Segregation Code</b>   | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<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.   |
| · <b>VN "Model Regulation":</b>   | Niet van toepassing   |

## RUBRIEK 15: Regelgeving

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

- **SZW-lijst van kankerverwekkende stoffen**

14808-60-7	kwarts (SiO <sub>2</sub> )
------------	----------------------------

- **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.

NL

(Vervolg op blz. 8)



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(Vervolg van blz. 7)

**RUBRIEK 16: Overige informatie**

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

**· Relevante zinnen**

H241 Brand- of ontploffingsgevaar bij verwarming.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

**· Afkortingen en acroniemen:**

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

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

STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

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

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31






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

- **1.1 Identificateur de produit**
- **Nom du produit:** TECHNOVIT 4000 POWDER
- **Code du produit:** 14656-02(P), 14656-03(P)
- **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.  
 STOT RE 1      H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.
- 
 GHS09 environnement  
  
 Aquatic Acute 1      H400 Très toxique pour les organismes aquatiques.
- 
 GHS07  
  
 Eye Irrit. 2      H319 Provoque une sévère irritation des yeux.  
 Skin Sens. 1      H317 Peut provoquer une allergie cutanée.  
  
 Aquatic Chronic 3      H412 Nocif pour les organismes aquatiques, entraîne des effets néfastes à long terme.
- **2.2 Éléments d'étiquetage**
- **Etiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

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**· Pictogrammes de danger**

**· 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.

H319 Provoque une sévère irritation des yeux.

H317 Peut provoquer une allergie cutanée.

H361f Susceptible de nuire à la fertilité.

H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

H400 Très toxique pour les organismes aquatiques.

H412 Nocif 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.

P260 Ne pas respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

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.

P501 Éliminer le contenu/récipient 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: 14808-60-7 EINECS: 238-878-4	quartz (SiO <sub>2</sub> ) substance pour laquelle il existe, en vertu des dispositions communautaires, des limites d'exposition sur le lieu de travail	50-100%
CAS: 94-36-0 EINECS: 202-327-6	peroxyde de dibenzoyl Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

**· Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

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### RUBRIQUE 4: Premiers secours

#### · 4.1 Description des premiers secours

##### · **Après inhalation:**

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

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

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

##### · **Après contact avec les yeux:**

Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.

##### · **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

Mettre les personnes en sécurité.

#### · 6.2 Précautions pour la protection de l'environnement:

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

#### · 6.3 Méthodes et matériel de confinement et de nettoyage:

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Assurer une aération suffisante.

#### · 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

Veiller à une bonne ventilation/aspiration du poste de travail.

Ouvrir et manipuler les récipients avec précaution.

Eviter la formation d'aérosols.

#### · **Préventions des incendies et des explosions:**

Tenir à l'abri des sources d'inflammation - ne pas fumer.

Eviter les chocs et les frictions.

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- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**  
Tenir les emballages hermétiquement fermés.  
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.

### 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:**

<b>14808-60-7 quartz (SiO<sub>2</sub>)</b>	
<b>VME</b>	Valeur à long terme: 0,1 mg/m <sup>3</sup> pour la fraction alvéolaire

- **Remarques supplémentaires:**

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

- **8.2 Contrôles de l'exposition**

- **Équipement de protection individuel:**

- **Mesures générales de protection et d'hygiène:**

Retirer immédiatement les vêtements souillés ou humectés.  
Se laver les mains avant les pauses et en fin de travail.

- **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

- **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 recommandées pour le transvasement.

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### RUBRIQUE 9: Propriétés physiques et chimiques

#### · 9.1 Informations sur les propriétés physiques et chimiques essentielles

##### · Indications générales

##### · Aspect:

Forme:	Poudre
Couleur:	Incolore
Odeur:	Inodore
Seuil olfactif:	Non déterminé.

· valeur du pH: Non déterminé.

##### · Changement d'état

Point de fusion:	Non déterminé.
Point d'ébullition:	Non déterminé.

· Point d'éclair Non applicable.

· Inflammabilité (solide, gazeux): Non applicable.

##### · Température d'inflammation:

Température de décomposition: Non déterminé.

· Auto-inflammation: Le produit ne s'enflamme pas spontanément.

· Danger d'explosion: Le produit n'est pas explosif.  
Grand risque d'explosion par le choc, la friction, le feu ou d'autres sources d'ignition.

##### · Limites d'explosion:

Inférieure:	Non déterminé.
Supérieure:	Non déterminé.

· Pression de vapeur: Non déterminé.

Densité à 20 °C:	2.65 g/cm <sup>3</sup>
Densité relative	Non déterminé.
Densité de vapeur.	Non déterminé.
Vitesse d'évaporation	Non déterminé.

· Solubilité dans/miscibilité avec l'eau: Pas ou peu miscible

· Coefficient de partage (n-octanol/eau): Non déterminé.

##### · Viscosité:

Dynamique:	Non déterminé.
Cinématique:	Non déterminé.

##### · Teneur en solvants:

Solvants organiques:	0.0 %
VOC (CE)	0,00 %

Teneur en substances solides: 95.0 %

· 9.2 Autres informations Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

· 10.1 Réactivité Pas d'autres informations importantes disponibles.

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

### RUBRIQUE 11: Informations toxicologiques

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

### RUBRIQUE 12: Informations écologiques

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

### RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.

(suite page 7)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 18.01.2016

Révision: 18.01.2016

**Nom du produit: TECHNOVIT 4000 POWDER**

(suite de la page 6)

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

### RUBRIQUE 14: Informations relatives au transport

- |  |   |
|--|---|
| <b>· 14.5 Dangers pour l'environnement:</b>  | Non applicable.   |
| <b>· 14.6 Précautions particulières à prendre par l'utilisateur</b>                                  | Non applicable.   |
| <b>· Stowage Category</b>  | D   |
| <b>· Stowage Code</b>  | SW1 Protected from sources of heat.   |
| <b>· Segregation Code</b>  | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| <b>· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b> | Non applicable.   |
| <b>· "Règlement type" de l'ONU:</b>  | néant   |

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

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**Fiche de données de sécurité**  
**selon 1907/2006/CE, Article 31**

Date d'impression : 18.01.2016

Révision: 18.01.2016

**Nom du produit: TECHNOVIT 4000 POWDER***Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Repr. 2: Reproductive toxicity, Hazard Category 2**STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

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FR

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 18.01.2016

überarbeitet am: 18.01.2016

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

- **1.1 Produktidentifikator**
- **Handelsname:** TECHNOVIT 4000 POWDER
- **Artikelnummer:** 14656-02(P), 14656-03(P)
- **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.

STOT RE 1

H372 Schädigt die Organe bei längerer oder wiederholter Exposition.



GHS09 Umwelt

Aquatic Acute 1

H400 Sehr giftig für Wasserorganismen.

(Fortsetzung auf Seite 2)

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GHS07

Eye Irrit. 2            H319 Verursacht schwere Augenreizung.  
 Skin Sens. 1        H317 Kann allergische Hautreaktionen verursachen.  
 Aquatic Chronic 3 H412 Schädlich für Wasserorganismen, mit langfristiger Wirkung.

### · 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.  
 H319 Verursacht schwere Augenreizung.  
 H317 Kann allergische Hautreaktionen verursachen.  
 H361f Kann vermutlich die Fruchtbarkeit beeinträchtigen.  
 H372 Schädigt die Organe bei längerer oder wiederholter Exposition.  
 H400 Sehr giftig für Wasserorganismen.  
 H412 Schädlich für Wasserorganismen, mit langfristiger Wirkung.

#### · Sicherheitshinweise

P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.  
 P260 Staub/Rauch/Gas/Nebel/Dampf/Aerosol nicht einatmen.  
 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.  
 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	2,5-10%
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 bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.

· **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**  
Personen in Sicherheit bringen.

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

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

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

Für ausreichende Lüftung sorgen.

· **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**

Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.

Behälter mit Vorsicht öffnen und handhaben.

Aerosolbildung vermeiden.

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

Zündquellen fernhalten - nicht rauchen.

Schlag und Reibung vermeiden.

(Fortsetzung auf Seite 4)

# Sicherheitsdatenblatt

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- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:**  
Behälter dicht geschlossen halten.  
Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** Selbstzersetzliche Stoffe oder Gemische
- **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**

· <b>Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:</b>
--

14808-60-7 Quarz
------------------

MAK   alveolengängige Fraktion
--------------------------------

- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
Beschmutzte, getränkte Kleidung sofort ausziehen.  
Vor den Pausen und bei Arbeitsende Hände waschen.
- **Atemschutz:**  
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

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

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

- **Handschuhmaterial**  
Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.
- **Durchdringungszeit des Handschuhmaterials**  
Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:** Beim Umfüllen Schutzbrille empfehlenswert.

DE

(Fortsetzung auf Seite 5)

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### ABSCHNITT 9: Physikalische und chemische Eigenschaften

#### · 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

##### · Allgemeine Angaben

##### · Aussehen:

Form:	Pulver
Farbe:	Farblos
Geruch:	Geruchlos
Geruchsschwelle:	Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

##### · Zustandsänderung

Schmelzpunkt/Schmelzbereich:	Nicht bestimmt.
Siedepunkt/Siedebereich:	Nicht bestimmt.

· Flammpunkt: Nicht anwendbar.

· Entzündlichkeit (fest, gasförmig): Nicht anwendbar.

##### · Zündtemperatur:

Zersetzungstemperatur: Nicht bestimmt.

· Selbstentzündlichkeit: Das Produkt ist nicht selbstentzündlich.

· Explosionsgefahr: Das Produkt ist nicht explosionsgefährlich.  
Durch Schlag, Reibung, Feuer oder andere Zündquellen besonders explosionsgefährlich.

##### · Explosionsgrenzen:

Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.

· Dampfdruck: Nicht bestimmt.

Dichte bei 20 °C:	2,65 g/cm <sup>3</sup>
Relative Dichte	Nicht bestimmt.
Dampfdichte	Nicht bestimmt.
Verdampfungsgeschwindigkeit	Nicht bestimmt.

· Löslichkeit in / Mischbarkeit mit Wasser: Nicht bzw. wenig mischbar.

· Verteilungskoeffizient (n-Octanol/Wasser): Nicht bestimmt.

##### · Viskosität:

Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.

##### · Lösemittelgehalt:

Organische Lösemittel:	0,0 %
VOC (EU)	0,00 %

Festkörpergehalt: 95,0 %

· 9.2 Sonstige Angaben: Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

· 10.1 Reaktivität: Keine weiteren relevanten Informationen verfügbar.

(Fortsetzung auf Seite 6)

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**Handelsname: TECHNOVIT 4000 POWDER**

(Fortsetzung von Seite 5)

- **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**  
Schädigt die Organe bei längerer oder wiederholter Exposition.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

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

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

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- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

### ABSCHNITT 14: Angaben zum Transport

- |   |   |
|---|---|
| <b>· 14.5 Umweltgefahren:</b>   | Nicht anwendbar.  |
| <b>· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>                                    | Nicht anwendbar.  |
| <b>· Stowage Category</b>   | D   |
| <b>· Stowage Code</b>   | SW1 Protected from sources of heat.   |
| <b>· Segregation Code</b>   | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.<br>SG35 Stow "separated from" acids.<br>SG36 Stow "separated from" alkalis. |
| <b>· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b> | Nicht anwendbar.  |
| <b>· UN "Model Regulation":</b>   | entfällt  |

### 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.  
H319 Verursacht schwere Augenreizung.
- **Abkürzungen und Akronyme:**  
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

(Fortsetzung auf Seite 8)



**Sicherheitsdatenblatt**  
gemäß 1907/2006/EG, Artikel 31

Druckdatum: 18.01.2016

überarbeitet am: 18.01.2016

**Handelsname: TECHNOVIT 4000 POWDER**

(Fortsetzung von Seite 7)

*vPvB: very Persistent and very Bioaccumulative**Self-react. B: Self-Reactive Substances and Mixtures, Type B**Org. Perox. B: Organic Peroxides, Type B**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**STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

-DE-

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

Stampato il: 18.01.2016

Revisione: 18.01.2016

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** TECHNOVIT 4000 POWDER

· **Articolo numero:** 14656-02(P), 14656-03(P)

· **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)

Societa 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

STOT RE 1

H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.



GHS09 ambiente

Aquatic Acute 1

H400 Molto tossico per gli organismi acquatici.



GHS07

Eye Irrit. 2

H319 Provoca grave irritazione oculare.

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**Scheda di dati di sicurezza**  
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(Segue da pagina 1)

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

Aquatic Chronic 3 H412 Nocivo per gli organismi acquatici con effetti di lunga durata.

**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.

H319 Provoca grave irritazione oculare.

H317 Può provocare una reazione allergica cutanea.

H361f Sospettato di nuocere alla fertilità

H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.

H400 Molto tossico per gli organismi acquatici.

H412 Nocivo 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.

P260 Non respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.

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.

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: 14808-60-7 EINECS: 238-878-4	quarzo (SiO <sub>2</sub> ) sostanza con un limite comunitario di esposizione sul posto di lavoro	50-100%
CAS: 94-36-0 EINECS: 202-327-6	perossido di dibenzoile Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

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

(continua a pagina 3)

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

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**Denominazione commerciale: TECHNOVIT 4000 POWDER**

(Segue da pagina 2)

#### **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 alcuni minuti tenendo le palpebre ben aperte.

· **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**

Portare le persone in luogo sicuro.

· **6.2 Precauzioni ambientali:** Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

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

Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).  
 Provvedere ad una sufficiente areazione.

· **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**

Accurata ventilazione/aspirazione nei luoghi di lavoro.

Aprire e manipolare i recipienti con cautela.

Evitare la formazione di aerosol.

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

Tenere lontano da fonti di calore, non fumare.

Evitare gli urti e sfregamenti.

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

· **Stoccaggio:**

· **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.

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

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

Mantenere i recipienti ermeticamente chiusi.

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**Scheda di dati di sicurezza**  
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**Denominazione commerciale: TECHNOVIT 4000 POWDER**

(Segue da pagina 3)

- 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:**

**14808-60-7 quarzo (SiO<sub>2</sub>)**

TWA	Valore a lungo termine: 0,025 mg/m <sup>3</sup>
A2, (j)	

- **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:**  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- **Maschera protettiva:**  
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **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:** Si consiglia l'uso di occhiali protettivi durante il travaso.

### SEZIONE 9: Proprietà fisiche e chimiche

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

· **Indicazioni generali**

· **Aspetto:**

· <b>Forma:</b>	Polvere
· <b>Colore:</b>	Incolore
· <b>Odore:</b>	Inodore
· <b>Soglia olfattiva:</b>	Non definito.

· **valori di pH:** Non definito.

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**Scheda di dati di sicurezza**  
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· <b>Cambiamento di stato</b> Temperatura di fusione/ambito di fusione:	Non definito.
Temperatura di ebollizione/ambito di ebollizione:	Non definito.
· <b>Punto di infiammabilità:</b>	Non applicabile.
· <b>Infiammabilità (solido, gassoso):</b>	Non applicabile.
· <b>Temperatura di accensione:</b>	
Temperatura di decomposizione:	Non definito.
· <b>Autoaccensione:</b>	Prodotto non autoinfiammabile.
· <b>Pericolo di esplosione:</b>	Prodotto non esplosivo. Elevato rischio di esplosione per urto, sfregamento, fuoco o altre sorgenti d'ignizione.
· <b>Limiti di infiammabilità:</b> Inferiore:	Non definito.
Superiore:	Non definito.
· <b>Tensione di vapore:</b>	Non definito.
· <b>Densità a 20 °C:</b>	2.65 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità del vapore</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Poco e/o non miscibile.
· <b>Coefficiente di distribuzione (n-Octanol/acqua):</b>	Non definito.
· <b>Viscosità:</b> Dinamica:	Non definito.
Cinematica:	Non definito.
· <b>Tenore del solvente:</b> Solventi organici:	0.0 %
VOC (CE)	0,00 %
· <b>Contenuto solido:</b>	95.0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

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

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

Stampato il: 18.01.2016

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**Denominazione commerciale: TECHNOVIT 4000 POWDER**

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### **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**  
Provoca danni agli organi in caso di esposizione prolungata o ripetuta.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

### **SEZIONE 12: Informazioni ecologiche**

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

### **SEZIONE 13: Considerazioni sullo smaltimento**

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

### **SEZIONE 14: Informazioni sul trasporto**

- |   |                  |
|---|------------------|
| · <b>14.5 Pericoli per l'ambiente:</b>                  | Non applicabile. |
| · <b>14.6 Precauzioni speciali per gli utilizzatori</b> | Non applicabile. |

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

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· <b>Stowage Category</b>	<b>D</b>
· <b>Stowage Code</b>	<b>SW1 Protected from sources of heat.</b>
· <b>Segregation Code</b>	<b>SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.</b>
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>	<b>Non applicabile.</b>
· <b>UN "Model Regulation":</b>	<b>non applicabile</b>

### 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.

- **Frasei 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:**  
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  
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  
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

IT



# 안전지침서

제조조의위번호/2006/E라에 따라라따

기압점: 2016.01.18

개정: 2016.01.18

## 1 화학제품과 회사에 관한 정보

제품제품제자

· 제품명: **TECHNOVIT 4000 POWDER**

· 상품번호: 14656-02(P), 14656-03(P)

해당해당해물질이나 혼합물(연관관련)용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.

· 제품의 권고 용도와 사용 형태에 대한 제한사항 실화 학품

· 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: **화학안전정보** contact safety department

· 비상연락 전화번호:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

## 2 유해성.위험성

· 순물질 또는 혼합물(연관관련) 분류분류



폭발, 화염

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



건강에 위험

생식 독성 구분2

H361 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨

표적장기-반복노출 구분1

H372 장기간 또는 반복노출 되면 신체 중에 손상을 일으킴



환경

수생환경유해성-급성 구분1

H400 수생생물에 매우 유독함



심한 눈 손상/자극성 구분2

H319 눈에 심한 자극을 일으킴

피부과민성 구분1

H317 알레르기성 피부 반응을 일으킬 수 있음

수생환경유해성-만성 구분3

H412 장기적인 영향에 의해 수생생물에게 유해함

(2 쪽에 계속)

# 안전지침서

## 제조조의와 2006/2006/E에 따라라따

기압점: 2016.01.18

개정: 2016.01.18

**제품명: TECHNOVIT 4000 POWDER**

(1 쪽부터계속)

· 라벨표가 요소요소

· 라벨라벨표 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

유해유해유해유해유해문구

가열하면 화재 또는 폭발할 수 있음

눈에 심한 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

태아 또는 생식능력에 손상을 일으킬 것으로 의심됨

장기간 또는 반복노출 되면 신체 중에 손상을 일으킴

수생생물에 매우 유독함

장기적인 영향에 의해 수생생물에게 유해함

· 예방조치문구문구

열·스파크·화염·고열로부터 멀리하십시오 - 금연

(분진·흙·가스·미스트·증기·스프레이)를(을) 흡입하지 마시오.

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

(라벨 참조) 처치를 하시오.

잠금장치가 있는 저장장소에 저장 하시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

기타기타유해성

· PBT(잔류성, 생물농축성, 물성물질) 및 vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있지 않음

· PBT(잔류성, 생물농축성, 물성물질) 및 vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있지 않음.

· vPvB(고 잔류성, 고 생물농축성) 물질이 포함되어 있지 않음.

### 3 구성성분의 명칭 및 함유량

· 화학적 특성: 혼합물

설명설명설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· 위험 요소요소		
14808-60-7	Quartz (SiO2)	50-100%
94-36-0	dibenzoyl peroxide <div style="font-size: small;"> <span style="color: red;">⚠</span> <span style="color: red;">⚠</span> 유기과산화물 형식B, H241; <span style="color: red;">⚠</span> 심한 눈 손상/자극성 구분2, H319; 피부과민성 구분1, H317                 </div>	2,5-10%

### 4 응급조치 요령

· 응급조치요령 내용내용

· 흡입했을 때:

신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.

환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· 피부에 접촉했을 때: 즉시물과비누로씻고잘행군다.

(3 쪽에계속)



# 안전지침서

## 제조번호: 2006/ET에 따라라따

기압점: 2016.01.18

개정: 2016.01.18

**제품명: TECHNOVIT 4000 POWDER**

(3 쪽부터계속)

### 8 노출방지 및 개인보호구

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

통제 ~~통제~~ ~~통제~~ 변수

· **화학물질의 노출기준, 생물학적 노출기준 등:**

**14808-60-7 Quartz (SiO<sub>2</sub>)**

TLV (KR)	장기간의값: 0.05 mg/m <sup>3</sup>
PEL (US)	see Quartz listing
REL (US)	장기간의값: 0.05* mg/m <sup>3</sup> *respirable dust; See Pocket Guide App. A
TLV (US)	장기간의값: 0.025* mg/m <sup>3</sup> *as respirable fraction

· **추가정보** 정보 조 할 당시에 유 효 한 목 록 을 기초로 사용했다.

노출 ~~노출~~ ~~노출~~ 통제

개인 ~~개인~~ ~~개인~~ 보호구

· **일반적보호조치및위생조치:**

더러워지거나 옷이 젖은 옷은 즉시 탈의한다.  
휴식 전 이 나 작업이 끝날때마다 손을 씻는다.

· **호흡기보호보호**

단 시간 또는 경 미 한 오염 의 경우에는 호흡 여 과 기 를 사 용 한 다. 심 각 한 또는 장 기 간 노출 시 에 는 호흡 보호 장 비 를 사 용 한 다.

**보습 보호보호**



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.

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

투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑 의 재료**

적합한 장갑의 선정은 재질 차이 뿐 아니라 품질 기준의 차이도 고려하여 이루어져야 하고 제조업종에 따라서도 다르게 선정되어야 한다. 제품은 다양한 재료로부터의 조제가 이루어지는 것이기 때문에, 장갑재질의 안정성은 사전에 예측되어질 수 있는 것이 아니고, 반드시 사용 전에 (그 안전성이) 체크되어야 한다.

· **장갑 재료의 투과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의 하여 인 지 되고, 준수 되어야 한다.

**보습 보호 보호** 거부울 경우 추천할 만한 보안경.

### 9 물리화학적 특성

기본 ~~기본~~ ~~기본~~ 물리화학적 특성에 대한 정보

· **일반정보**

외형외형외형

· **물량적 상태 상태**

가루

· **색:**

색소가 없는

냄새 냄새 냄새

무취의

· **후각역치**

알맞지 않다.

· **pH:**

알맞지 않다.

· **상태변화**

· **녹는점/어는점:**

맞지 않는다

(5 쪽에계속)

# 안전지침서

제조조의와제/2006/에 따라

기압점: 2016.01.18

개정: 2016.01.18

제품명: TECHNOVIT 4000 POWDER

(4 쪽부터계속)

초기초기 <b>화산 점과 끓는점</b> 범위범위맞지않는	
· 인화점:	해당사항 없음.
· 인화성 고체/액체	해당사항 없음.
· 점화온도:	
분해온도	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다 타격, 마찰, 화염또는다른발화원인을통하여폭발위험성이있는
인화 인화 인화 폭발 위험의 상한하한	아래로:
위로위로	알맞지않다.
· 증기압:	알맞지않다.
밀도 밀도 밀도 경우 20 °C:	2.65 g/cm <sup>3</sup>
비중 비중 비중	알맞지않다.
· 증기밀도:	알맞지않다.
증발 증발 증발 속도	알맞지않다.
· 용해도:	
물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
점도 점도 점도	
역학성:	알맞지않다.
동점성:	알맞지않다.
· 용매내용물	
유기용매:	0.0 %
VOC (EU)	0.00 %
고체 함량 함량	95.0 %
기타 정보 정보	추가적인 정보가 존재하지 않습니다.

## 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해 야한 조건 조건에 따라 사용 할 경우 해체는 없다
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해 야한 조건 조건에 대한 정보가 존재하지 않습니다.
- 혼합 혼합 혼합 혼합 혼합물 추가적인 정보가 존재하지 않습니다.
- 유해 분해물 질: 위험성 있는 분해물들은 알려지지 않았다.

## 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성 독성 독성
- 일차적 자극 효과
- 피부 피부 자극성 또는 자극 성: 무자극

(6 쪽에 계속)

# 안전지침서

## 제조조의와 7/2006/E에 따라라따

기압점: 2016.01.18

개정: 2016.01.18

**제품명: TECHNOVIT 4000 POWDER**

(5 쪽부터계속)

심한 심한 심한 심한 심한 자극성: 무자극.

· **감각화:** 피부접촉을 통하여감각화가능성이있다.

· **추가적인 독성에 관한정보**

이제 품은 유럽공동체의공통분류원칙의합법적인절차에근거하여최근에발 호된원고에서아래위험들의사전 준비에대하여제시하고있다.

자극적인

다음다음 **중독의 잠재적인 효과에 대한정보**

· **CMR과 효과유발, 유전변이성 그리고 생식독성**

생식 독성 구분2

### 12 환경에 미치는 영향

독성독성독성

· **수생독성:** 추가적인 정보가 존재하지 않습니다.

· **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.

· **환경 시스템에서의 행동:**

· **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.

· **토양내 이동성** 추가적인 정보가 존재하지 않습니다.

· **추가적인 생태학 정보**

일반 **오염방지기능**

수질오염등급 1 (자체등급분류): 약하게수질오염이된

희석시키지않은채대량으로지하수나, 하천으로그리고하수도망에도달하지않게한다.

· **PBT(잔류성, 생물농축성, 물질분해성) 및 vPvB(고 잔류성, 고 생물농축성, 물질분해성)에 대한 결과**

· **PBT(잔류성, 생물농축성, 물질분해성)당사항 없음.**

· **vPvB(고 잔류성, 고 생물농축성, 물질분해성)당사항 없음.**

기타기타 **부작용** 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

· **폐기물처리방법**

권고권고 **건설**쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

· **비위생적 포장포장**

권고권고 **당**의지침에입각한쓰레기처리.

### 14 운송에 필요한 정보

· **환경적 유해물질:** 해당사항 없음.

· **이동시 특별 예방조치** 해당사항 없음.

· **Stowage Category** D

· **Stowage Code** SW1 Protected from sources of heat.

· **Segregation Code** SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3.

SG35 Stow "separated from" acids.

SG36 Stow "separated from" alkalis.

· **MARPOL73/78(선박으로부터의 해양오염방지협**

**약) 부속서2 및 IBC Code(국제선적화물코드)에 따**

**별크별크**운송운송 해당사항 없음.

(7 쪽에계속)



# 안전지침서

## 제조소의와 2006/EC에 따라라따

기압점: 2016.01.18

개정: 2016.01.18

**제품명: TECHNOVIT 4000 POWDER**

(7 쪽부터계속)

vPvB: very Persistent and very Bioaccumulative

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

유기과산화물 형식B: Organic Peroxides, Type B

심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2

심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2

피부과민성 구분1: Sensitisation - Skin, Hazard Category 1

생식 독성 구분2: Reproductive toxicity, Hazard Category 2

표적장기-반복노출 구분1: Specific target organ toxicity - Repeated exposure, Hazard Category 1

수생환경유해성-급성 구분1: Hazardous to the aquatic environment - AcuteHazard, Category 1

수생환경유해성-만성 구분3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

KR



# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 18.01.2016

Revisión: 18.01.2016

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

#### · 1.1 Identificador del producto

· **Nombre comercial:** TECHNOVIT 4000 POWDER

· **Número del artículo:** 14656-02(P), 14656-03(P)

#### · 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.

STOT RE 1

H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.



GHS09 medio ambiente

Aquatic Acute 1

H400 Muy tóxico para los organismos acuáticos.



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 18.01.2016

Revisión: 18.01.2016

**Nombre comercial: TECHNOVIT 4000 POWDER**

( se continua en página 1 )

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

*Aquatic Chronic 3 H412 Nocivo para los organismos acuáticos, con efectos nocivos duraderos.*

**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.

H319 Provoca irritación ocular grave.

H317 Puede provocar una reacción alérgica en la piel.

H361f Se sospecha que perjudica a la fertilidad.

H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

H400 Muy tóxico para los organismos acuáticos.

H412 Nocivo 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.

P260 No respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.

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.

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: 14808-60-7 EINECS: 238-878-4	cuarzo (SiO <sub>2</sub> ) sustancia a la que se aplica un límite comunitario de exposición en el lugar de trabajo	50-100%
CAS: 94-36-0 EINECS: 202-327-6	peróxido de dibenzoilo Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%

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

### SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**
- **En caso de inhalación del producto:**  
 Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.  
 Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
- **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 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** Poner las personas a salvo.
- **6.2 Precauciones relativas al medio ambiente:**  
 Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**  
 Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).  
 Asegurar suficiente ventilación.
- **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**  
 Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
 Abrir y manejar el recipiente con cuidado.  
 Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:**  
 Mantener alejadas las fuentes de encendido. No fumar.  
 Evitar golpes y roces.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.

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- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.  
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:**

**14808-60-7 cuarzo (SiO<sub>2</sub>)**

LEP	Valor de larga duración: 0,05 mg/m <sup>3</sup> *Fracción resp:n,d,y
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- **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:**

Quitarse de inmediato la ropa ensuciada o impregnada.

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

- **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

- **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:** Se recomienda el uso de gafas de protección durante el trasvase del producto.

### SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**

- **Datos generales**

- **Aspecto:**

**Forma:** En polvo

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<b>Color:</b>	Incoloro
<b>· Olor:</b>	Inodoro
<b>· Umbral olfativo:</b>	No determinado.
<b>· valor pH:</b>	No determinado.
<b>· Cambio de estado</b>	
<b>Punto de fusión /campo de fusión:</b>	Indeterminado.
<b>Punto de ebullición /campo de ebullición:</b>	Indeterminado.
<b>· Punto de inflamación:</b>	No aplicable.
<b>· Inflamabilidad (sólido, gaseiforme):</b>	No aplicable.
<b>· Temperatura de ignición:</b>	
<b>Temperatura de descomposición:</b>	No determinado.
<b>· Autoinflamabilidad:</b>	El producto no es autoinflamable.
<b>· Peligro de explosión:</b>	El producto no es explosivo. Alto riesgo de explosión por choque, fricción, fuego u otras fuentes de ignición.
<b>· Límites de explosión:</b>	
<b>Inferior:</b>	No determinado.
<b>Superior:</b>	No determinado.
<b>· Presión de vapor:</b>	No determinado.
<b>· Densidad a 20 °C:</b>	2.65 g/cm <sup>3</sup>
<b>· Densidad relativa</b>	No determinado.
<b>· Densidad de vapor</b>	No determinado.
<b>· Velocidad de evaporación</b>	No determinado.
<b>· Solubilidad en / miscibilidad con agua:</b>	Poco o no mezclable.
<b>· Coeficiente de reparto (n-octanol/agua):</b>	No determinado.
<b>· Viscosidad:</b>	
<b>Dinámica:</b>	No determinado.
<b>Cinemática:</b>	No determinado.
<b>· Concentración del disolvente:</b>	
<b>Disolventes orgánicos:</b>	0.0 %
<b>VOC (CE)</b>	0,00 %
<b>· Contenido de cuerpos sólidos:</b>	95.0 %
<b>· 9.2 Otros datos</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

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· **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**  
Provoca daños en los órganos tras exposiciones prolongadas o repetidas.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 1 (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.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

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

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### SECCIÓN 14: Información relativa al transporte

· <b>14.5 Peligros para el medio ambiente:</b>	No aplicable.
· <b>14.6 Precauciones particulares para los usuarios</b>	No aplicable.
· <b>Stowage Category</b>	D
· <b>Stowage Code</b>	SW1 Protected from sources of heat.
· <b>Segregation Code</b>	SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. SG35 Stow "separated from" acids. 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.
· <b>"Reglamentación Modelo" de la UNECE:</b>	suprimido

### 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:**  
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  
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  
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1  
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3