

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/08/2022

Reviewed on 03/08/2022

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

Toxic to Reproduction 2

H361 Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS07

Eye Irritation 2

H319 Causes serious eye irritation.

Sensitization - Skin 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:**

dicyclohexyl phthalate

dibenzoyl peroxide

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· **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**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Keep/Store away from clothing/combustible materials.
- Keep only in original container.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- 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.
- Wear protective gloves / eye protection / face protection.
- If on skin: Wash with plenty of water.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF exposed or concerned: Get medical advice/attention.
- Specific treatment (see on this label).
- Get medical advice/attention if you feel unwell.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Wash contaminated clothing before reuse.
- In case of fire: Use CO₂, powder or water spray to extinguish.
- In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
- Store in a well-ventilated place. Keep cool.
- Store locked up.
- Store away from other materials.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 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 ₂) | >50-≤100% |
| 84-61-7 | dicyclohexyl phthalate | >2.5-≤10% |
| 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:** Use fire fighting measures that suit the environment.**· Special hazards arising from the substance or mixture** No further relevant information available.**· Advice for firefighters****· Protective equipment:** No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures 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.

· Protective Action Criteria for Chemicals**· PAC-1:**

| | | |
|------------|----------------------------|-------------------------|
| 14808-60-7 | Quartz (SiO ₂) | 0.075 mg/m ³ |
| 94-36-0 | dibenzoyl peroxide | 15 mg/m ³ |

· PAC-2:

| | | |
|------------|----------------------------|-------------------------|
| 14808-60-7 | Quartz (SiO ₂) | 33 mg/m ³ |
| 94-36-0 | dibenzoyl peroxide | 1,200 mg/m ³ |

· PAC-3:

| | | |
|------------|----------------------------|-----------------------|
| 14808-60-7 | Quartz (SiO ₂) | 200 mg/m ³ |
|------------|----------------------------|-----------------------|

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Trade name: **TECHNOVIT 4000 POWDER**

94-36-0 dibenzoyl peroxide

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7,000 mg/m³

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:**
*The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
 At this time, the other constituents have no known exposure limits.*

14808-60-7 Quartz (SiO₂)

| | |
|-----|--|
| PEL | Long-term value: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2 |
| REL | Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A |
| TLV | Long-term value: 0.025* mg/m ³ *respirable particulate matter, A2 |

- **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.

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· **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.

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.

· **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/cm³ (22.11425 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

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- | | |
|---|--|
| · 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: | |
| VOC content: | 0.00 % 0.0 g/l / 0.00 lb/gal |
| Solids content: | 95.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **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 ₂) | 1 |
| 94-36-0 | dibenzoyl peroxide | 3 |

- **NTP (National Toxicology Program)**

| | | |
|------------|----------------------------|---|
| 14808-60-7 | Quartz (SiO ₂) | K |
|------------|----------------------------|---|

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

None of the ingredients is listed.

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12 Ecological information

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

13 Disposal considerations

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

14 Transport information

| | |
|--|---|
| · Environmental hazards: | <i>Not applicable.</i> |
| · Special precautions for user | <i>Not applicable.</i> |
| · Stowage Category | <i>D</i> |
| · Stowage Code | <i>SW1 Protected from sources of heat.</i> |
| · Segregation Code | <i>SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. However, in relation to goods of class 1, segregation as for the primary hazard.</i> <i>SG35 Stow "separated from" SGG1-acids</i> <i>SG36 Stow "separated from" SGG18-alkalis.</i> |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | <i>Not applicable.</i> |
| · Transport/Additional information: | |
| · DOT | |
| · Quantity limitations | <i>On passenger aircraft/rail: Forbidden</i> <i>On cargo aircraft only: Forbidden</i> |
| · UN "Model Regulation": | <i>Void</i> |

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15 Regulatory information

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

No further relevant information available.

· **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 components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

14808-60-7 Quartz (SiO₂)

· **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)**

14808-60-7 Quartz (SiO₂)

A2

94-36-0 dibenzoyl peroxide

A4

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

14808-60-7 Quartz (SiO₂)

· **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:**

dicyclohexyl phthalate

dibenzoyl peroxide

· **Hazard statements**

Heating may cause a fire or explosion.

Causes serious eye irritation.

May cause an allergic skin reaction.

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Trade name: TECHNOVIT 4000 POWDER

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Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.

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

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

Keep/Store away from clothing/combustible materials.

Keep only in original container.

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

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.

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of water.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use CO₂, powder or water spray to extinguish.

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

Store in a well-ventilated place. Keep cool.

Store locked up.

Store away from other materials.

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

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

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.

· Contact:

· Date of preparation / last revision 03/08/2022 / -

· Abbreviations and acronyms:

DOT: US Department of Transportation

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-reactive substances and mixtures - Type B: Self-reactive substances and mixtures – Type B

Eye Irritation 2: Serious eye damage/eye irritation – Category 2

Sensitization - Skin 1: Skin sensitisation – Category 1

Toxic to Reproduction 2: Reproductive toxicity – Category 2

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

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according to WHS Regulations

Printing date 08.03.2022

Revision: 08.03.2022

1 Identification

- **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
www.emsdiasum.com
- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



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.

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

· **Label elements**

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

· **Hazard pictograms**



GHS01 GHS02 GHS07 GHS08

· **Signal word** *Danger*

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

dicyclohexyl phthalate

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**

Obtain special instructions before use.

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

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

Keep/Store away from clothing/combustible materials.

Keep only in original container.

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

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.

Wear protective gloves / eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

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

Store in a well-ventilated place. Keep cool.

Store locked up.

Store away from other materials.

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

AU

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according to WHS Regulations

Printing date 08.03.2022

Revision: 08.03.2022

Trade name: **TECHNOVIT 4000 POWDER**

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3 Composition and Information on Ingredients

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

- **Dangerous components:**

| | | |
|------------|----------------------------|-----------|
| 14808-60-7 | Quartz (SiO ₂) | >50-≤100% |
| 84-61-7 | dicyclohexyl phthalate | >2.5-≤10% |
| 94-36-0 | dibenzoyl peroxide | >2.5-≤10% |

- **SVHC**

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

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

4 First Aid Measures

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

5 Fire Fighting Measures

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

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** 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.

AU

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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 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 and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

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

14808-60-7 Quartz (SiO₂)

| | |
|-----|--|
| WES | Long-term value: 0.05 mg/m ³ respirable dust |
|-----|--|

- **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.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling

9 Physical and Chemical Properties

· 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/freezing point: | Undetermined. |
| Initial boiling point and boiling range: | Undetermined. |

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** 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. |

· **Vapour pressure:** Not determined.

| | |
|--------------------------|------------------------|
| Density at 20 °C: | 2.65 g/cm ³ |
| Relative density | Not determined. |
| Vapour 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:

VOC (EC) 0.00 %

Solids content: 95.0 %

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

10 Stability and Reactivity

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

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **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 (carcinogenity, 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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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

| | |
|---|--|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

15 Regulatory information

| | |
|---|------------------------------------|
| · Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| · Australian Inventory of Industrial Chemicals | All ingredients are listed. |
| · Standard for the Uniform Scheduling of Medicines and Poisons | |
| 94-36-0 dibenzoyl peroxide | S2, S4, S5 |
| · Australia: Priority Existing Chemicals | None of the ingredients is listed. |
| · 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: dicyclohexyl phthalate 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 Obtain special instructions before use. | |

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Trade name: TECHNOVIT 4000 POWDER

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Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Keep/Store away from clothing/combustible materials.
 Keep only in original container.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 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.
 Wear protective gloves / eye protection / face protection.
 IF ON SKIN: Wash with plenty of water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Get medical advice/attention if you feel unwell.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 In case of fire: Use CO₂, powder or water spray for extinction.
 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
 Store in a well-ventilated place. Keep cool.
 Store locked up.
 Store away from other materials.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P1a** EXPLOSIVES
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

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

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

16 Other information

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

- **Contact:**
- **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
 - SVHC: Substances of Very High Concern
 - vPvB: very Persistent and very Bioaccumulative
 - Self-react. B: Self-reactive substances and mixtures – Type B
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - Skin Sens. 1: Skin sensitisation – Category 1
 - Repr. 2: Reproductive toxicity – Category 2
 - STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/08/2022

Reviewed on 03/08/2022

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 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

Carcinogenicity - Category 1A

H350 May cause cancer.

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

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Trade name: TECHNOVIT 4000 POWDER

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

Quartz (SiO₂)
 dicyclohexyl phthalate
 dibenzoyl peroxide

· **Hazard statements**

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

· **Precautionary statements**

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep only in original packaging.
 Keep cool.
 Ground and bond container and receiving equipment.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 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.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 Get medical advice/attention if you feel unwell.
 Take off contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
 Store in a well-ventilated place.
 Store locked up.
 Store separately.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2
 Fire = 0
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = *2
 Fire = 0
 Reactivity = 0

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Printing date 03/08/2022

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Trade name: **TECHNOVIT 4000 POWDER**

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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 ₂) | 80-100% w/w * |
| 84-61-7 | dicyclohexyl phthalate | 1-5% w/w * |
| 94-36-0 | dibenzoyl peroxide | 1-5% w/w * |

* Actual concentration ranges are withheld as a trade secret.

4 First-aid measures

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

5 Fire-fighting measures

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

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** 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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Trade name: **TECHNOVIT 4000 POWDER**

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- 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 (SiO₂)

| | |
|----|--|
| EL | TWA: 0.025 mg/m ³ ACGIH A2; IARC 1 |
| EV | TWA: 0.10* mg/m ³ *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.

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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:**

| | |
|--------------------------|-----------------|
| · 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.· **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: | 2.65 g/cm ³ |
| · 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:**

| | |
|--------------------------|--------|
| · 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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Printing date 03/08/2022

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Trade name: **TECHNOVIT 4000 POWDER**

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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 ₂) | 1 |
| 94-36-0 | dibenzoyl peroxide | 3 |

- **NTP (National Toxicology Program)**

| | | |
|------------|----------------------------|---|
| 14808-60-7 | Quartz (SiO ₂) | K |
|------------|----------------------------|---|

12 Ecological information

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

13 Disposal considerations

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

(Contd. on page 7)

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Safety Data Sheet

according to HPR, Schedule 1

Printing date 03/08/2022

Reviewed on 03/08/2022

Trade name: **TECHNOVIT 4000 POWDER**

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|--|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT/TDG | |
| · Quantity limitations | On passenger aircraft/rail: Forbidden On cargo aircraft only: Forbidden |
| · UN "Model Regulation": | Void |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- **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 components have the value ACTIVE.

- **Canadian substance listings:**

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

All ingredients are listed.

- **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

14808-60-7 Quartz (SiO₂)

94-36-0 dibenzoyl peroxide

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

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Trade name: **TECHNOVIT 4000 POWDER**

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labeling:**

Quartz (SiO₂)
dicyclohexyl phthalate
dibenzoyl peroxide

· **Hazard statements**

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

· **Precautionary statements**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep only in original packaging.
Keep cool.
Ground and bond container and receiving equipment.
Do not breathe dust/fume/gas/mist/vapours/spray.
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.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
Store in a well-ventilated place.
Store locked up.
Store separately.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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

16 Other information

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

· **Contact:**

· **Date of the latest revision of the safety data sheet** 03/08/2022 / -

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Safety Data Sheet
according to HPR, Schedule 1

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Reviewed on 03/08/2022

Trade name: TECHNOVIT 4000 POWDER

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Abbreviations and acronyms:

DOT: US Department of Transportation
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

CA

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

Printing date 08.03.2022

Revision: 08.03.2022

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
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**



exploding bomb

Unst. Expl. H200 Unstable explosives.



health hazard

Repr. 1B H360D May damage the unborn child.



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

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



GHS01



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
dicyclohexyl phthalate

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dibenzoyl peroxide

· **Hazard statements**

- H200 Unstable explosives.
- H317 May cause an allergic skin reaction.
- H360D May damage the unborn child.

· **Precautionary statements**

- P250 Do not subject to grinding/shock/friction.
- P373 DO NOT fight fire when fire reaches explosives.
- P380 Evacuate area.
- P401 Store in accordance with local/regional/national/international regulations.
- 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: 84-61-7 | dicyclohexyl phthalate | >2.5-≤10% |
| EINECS: 201-545-9 | ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | |
| 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 | |

· **SVHC**

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

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

SECTION 4: First aid measures

· **4.1 Description of first aid measures**· **After inhalation:**

- Supply fresh air and to be sure call for a doctor.
- In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.· **After eye contact:** Rinse opened eye for several minutes under running water.· **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:** Use fire extinguishing methods suitable to surrounding conditions.· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.

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- **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

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

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

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

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

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

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
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.

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· **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/freezing point: | Undetermined. |
| Initial boiling point and boiling range: | Undetermined. |

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

· **Explosive properties:** 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. |

· **Vapour pressure:** Not determined.

| | |
|--------------------------|------------------------|
| Density at 20 °C: | 2.65 g/cm ³ |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |

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| | |
|--|--|
| · 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: | |
| VOC (EC) | 0.00 % |
| Solids content: | 95.0 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

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

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.

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

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

- | | |
|--|--|
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

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** P1a EXPLOSIVES
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

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

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

SECTION 16: Other information

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

· **Relevant phrases**

H241 Heating may cause a fire or explosion.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

· **Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Unst. Expl.: Explosives – Unstable explosive

Org. Perox. B: Organic peroxides – Type B

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

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1B: Reproductive toxicity – Category 1B

GB

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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)
- **UFI:** 6802-405V-300C-EJ35
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- Aurion
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

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



GHS01 ontploffende bom

Unst. Expl. H200 Instabiele ontplofbare stof.



GHS08 gezondheidsgevaar

Repr. 1B H360D Kan het ongeboren kind schaden.



GHS07

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

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

(Vervolg op blz. 2)

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· **Gevarenpictogrammen**

GHS01 GHS07 GHS08

· **Signaalwoord** Gevaar· **Gevaaraanduidende componenten voor de etikettering:**

dicyclohexylftalaat
dibenzoylperoxide

· **Gevarenaanduidingen**

H200 Instabiele ontplofbare stof.
H317 Kan een allergische huidreactie veroorzaken.
H360D Kan het ongeboren kind schaden.

· **Veiligheidsaanbevelingen**

P250 Malen/schokken/wrijving vermijden.
P373 NIET blussen wanneer het vuur de ontplofbare stoffen bereikt.
P380 Evacueren.
P401 Opslaan volgens de plaatselijke/regionale/nationale/internationale voorschriften.
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 ₂) stof waarvoor binnen de Gemeenschap een blootstellingsgrens op de werkvloer geldt | >50-≤100% |
| CAS: 84-61-7 EINECS: 201-545-9 | dicyclohexylftalaat ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |
| CAS: 94-36-0 EINECS: 202-327-6 | dibenzoylperoxide ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |

· **SVHC**

84-61-7 dicyclohexylftalaat

· **Aanvullende gegevens:**

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

RUBRIEK 4: Eerstehulpmaatregelen

· **4.1 Beschrijving van de eerstehulpmaatregelen**· **Na het inademen:**

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

(Vervolg op blz. 3)

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- Bij bewusteloosheid ligging en vervoer in stabiele zijligging.*
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:** 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:** Brandblusmaatregelen op omgeving afstemmen.
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures**
Personen in veiligheid brengen.
- **6.2 Milieuvorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- 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.
- **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.

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RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **8.1 Controleparameters**
- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

14808-60-7 kwarts (SiO₂)

| | |
|----|--|
| WG | Lange termijn waarde: 0,075 mg/m ³ respirabele fractie |
|----|--|

- **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 chemicaliënmengsel afgegeven worden.

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

- **Handschoenmateriaal**

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

- **Doordringingstijd van het handschoenmateriaal**

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

- **Oogbescherming:** Bij het omgieten is het gebruik van een veiligheidsbril aan te bevelen.

RUBRIEK 9: Fysische en chemische eigenschappen

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

- **Algemene gegevens**

- **Voorkomen:**

| | |
|-------|--------|
| Vorm: | Poeder |
|-------|--------|

| | |
|--------|-----------|
| Kleur: | Kleurloos |
|--------|-----------|

- **Geur:** Reukloos

- **Geurdrempelwaarde:** Niet bepaald.

- **pH-waarde:** Niet bepaald.

- **Toestandsverandering**

| | |
|-------------------|---------------|
| Smelt-/vriespunt: | Niet bepaald. |
|-------------------|---------------|

| | |
|-------------------------------|---------------|
| Beginkookpunt en kooktraject: | Niet bepaald. |
|-------------------------------|---------------|

(Vervolg op blz. 5)

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| | |
|---|---|
| · Vlampunt: | Niet bruikbaar. |
| · Ontvlambaarheid (vast, gas): | Niet bruikbaar. |
| · Ontledingstemperatuur: | Niet bepaald. |
| · Zelfontbrandingstemperatuur: | Het produkt ontbrandt niet uit zichzelf. |
| · Ontploffingseigenschappen: | 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 ³ |
| · 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: | |
| 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.
- **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** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

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- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.
- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting**
Kan het ongeboren kind schaden.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

RUBRIEK 12: Ecologische informatie

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

RUBRIEK 13: Instructies voor verwijdering

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

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|---|--|
| · 14.5 Milieugevaren: | Niet bruikbaar. |
| · 14.6 Bijzondere voorzorgen voor de gebruiker | Niet bruikbaar. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |

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- | | |
|---|---------------------|
| · 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code | Niet bruikbaar. |
| · VN "Model Regulation": | 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 ₂) |
|------------|----------------------------|

- **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.

- **Lijst Zeer Zorgwekkende Stoffen (ZZS)**

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

- **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

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 P1a ONTPLOFBARE STOFFEN**

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

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

- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3, 30

- **Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II**

geen der bestanddelen staat op de lijst.

- **VERORDENING (EU) 2019/1148**

- **Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)**

geen der bestanddelen staat op de lijst.

- **Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD**

geen der bestanddelen staat op de lijst.

- **Verordening (EG) nr. 273/2004 inzake drugsprecursoren**

geen der bestanddelen staat op de lijst.

- **Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren**

geen der bestanddelen staat op de lijst.

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· **Nationale voorschriften:**

· **Gevaarklasse v. water:**

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

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

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

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

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

RUBRIEK 16: Overige informatie

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

· **Relevante zinnen**

H241 Brand- of ontploffingsgevaar bij verwarming.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H360D Kan het ongeboren kind schaden.

· **Afkortingen en acroniemen:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Unst. Expl.: Ontpofbare stoffen – Instabiele ontpofbare stof

Org. Perox. B: Organische peroxiden – Type B

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

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

Repr. 1B: Voortplantingstoxiciteit – Categorie 1B

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

- **1.1 Identificateur de produit**
- **Nom du produit:** TECHNOVIT 4000 POWDER
- **Code du produit:** 14656-02(P), 14656-03(P)
- **UFI:** 6802-405V-300C-EJ35
- **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
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 bombe explosant

Unst. Expl. H200 Explosif instable.



GHS08 danger pour la santé

Repr. 1B H360D Peut nuire au fœtus.



GHS07

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

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



GHS01



GHS07



GHS08

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

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peroxyde de dibenzoyle

· **Mentions de danger**

H200 Explosif instable.

H317 Peut provoquer une allergie cutanée.

H360D Peut nuire au fœtus.

· **Conseils de prudence**

P250 Éviter les abrasions/les chocs/les frottements.

P373 NE PAS combattre l'incendie lorsque le feu atteint les explosifs.

P380 Évacuer la zone.

P401 Stocker conformément à la réglementation locale/régionale/nationale/internationale.

P405 Garder sous clef.

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

· **2.3 Autres dangers**

· **Résultats des évaluations PBT et vPvB**

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

· **3.2 Caractérisation chimique: Mélanges**

· **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.

· **Composants dangereux:**

| | | |
|--------------------------------------|--|-----------|
| CAS: 14808-60-7 EINECS: 238-878-4 | quartz (SiO ₂) substance pour laquelle il existe, en vertu des dispositions communautaires, des limites d'exposition sur le lieu de travail | >50-≤100% |
| CAS: 84-61-7 EINECS: 201-545-9 | phtalate de dicyclohexyle ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |
| CAS: 94-36-0 EINECS: 202-327-6 | peroxyde de dibenzoyle ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |

· **SVHC**

| | |
|---------|---------------------------|
| 84-61-7 | phtalate de dicyclohexyle |
|---------|---------------------------|

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

RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**

· **Après inhalation:**

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

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

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

· **Après contact avec les yeux:**

Rincer les yeux, 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.

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RUBRIQUE 5: Mesures de lutte contre l'incendie

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

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**
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.
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**
Tenir à l'abri des sources d'inflammation - ne pas fumer.
Éviter les chocs et les frictions.
- **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

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

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

14808-60-7 quartz (SiO₂)

VLEP Valeur à long terme: 0,1 mg/m³
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.

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/point de congélation: Non déterminé.

Point initial d'ébullition et intervalle d'ébullition: Non déterminé.

· **Point d'éclair** Non applicable.

· **Inflammabilité (solide, gaz):** Non applicable.

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| | |
|--|---|
| · Température de décomposition: | Non déterminé. |
| · Température d'auto-inflammabilité: | Le produit ne s'enflamme pas spontanément. |
| · Propriétés explosives: | 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 ³ |
| · Densité relative | Non déterminé. |
| · Densité de vapeur: | Non déterminé. |
| · Taux 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: | |
| 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.
- **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**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.

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- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité 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**
Peut nuire au fœtus.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

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

RUBRIQUE 13: Considérations relatives à l'élimination

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

RUBRIQUE 14: Informations relatives au transport

- | | |
|---|-------------------------------------|
| · 14.5 Dangers pour l'environnement: | Non applicable. |
| · 14.6 Précautions particulières à prendre par l'utilisateur | Non applicable. |
| · Stowage Category | D |
| · Stowage Code | SW1 Protected from sources of heat. |

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| | |
|--|--|
| · Segregation Code | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC | Non applicable. |
| · "Règlement type" de l'ONU: | 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 P1a EXPLOSIBLES**
- **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**
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3, 30

· **Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II**

Aucun des composants n'est compris.

· **RÈGLEMENT (UE) 2019/1148**

· **Annexe I - PRÉCURSEURS D'EXPLOSIFS FAISANT L'OBJET DE RESTRICTIONS (Valeur limite maximale aux fins de l'octroi d'une licence en vertu de l'article 5, paragraphe 3)**

Aucun des composants n'est compris.

· **Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALLEMENT**

Aucun des composants n'est compris.

· **Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues**

Aucun des composants n'est compris.

· **Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers**

Aucun des composants n'est compris.

· **Prescriptions nationales:**

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

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

84-61-7 | phtalate de dicyclohexyle

· **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.

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· Phrases importantes*H241 Peut s'enflammer ou exploser sous l'effet de la chaleur.**H317 Peut provoquer une allergie cutanée.**H319 Provoque une sévère irritation des yeux.**H360D Peut nuire au fœtus.***· Acronymes et abréviations:***GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Unst. Expl.: Explosibles – Explosible instable**Org. Perox. B: Peroxydes organiques – Type B**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**Repr. 1B: Toxicité pour la reproduction – Catégorie 1B*

FR

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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)
- **UFI:** 6802-405V-300C-EJ35
- **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

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

ABSCHNITT 2: Mögliche Gefahren

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



GHS01 explodierende Bombe

Unst. Expl. H200 Instabil, explosiv.



GHS08 Gesundheitsgefahr

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



GHS07

Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

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



GHS01 GHS07 GHS08

- **Signalwort Gefahr**
- **Gefahrbestimmende Komponenten zur Etikettierung:**
Dicyclohexylphthalat
Dibenzoylperoxid
- **Gefahrenhinweise**
H200 Instabil, explosiv.
H317 Kann allergische Hautreaktionen verursachen.
H360D Kann das Kind im Mutterleib schädigen.
- **Sicherheitshinweise**
P250 Nicht schleifen/stoßen/reiben.
P373 KEINE Brandbekämpfung, wenn das Feuer explosive Stoffe/Gemische/Erzeugnisse erreicht.
P380 Umgebung räumen.
P401 Gemäß örtlicher/regionaler/nationaler/internationaler Vorschrift lagern.
P405 Unter Verschluss aufbewahren.
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **Zusätzliche Angaben:**
Nur für gewerbliche Anwender.
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

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

- **Gefährliche Inhaltsstoffe:**

| | | |
|-------------------|--|-----------|
| CAS: 84-61-7 | Dicyclohexylphthalat | >2,5-≤10% |
| EINECS: 201-545-9 | Repr. 1B, H360D; Skin Sens. 1, H317 | |
| CAS: 94-36-0 | Dibenzoylperoxid | >2,5-≤10% |
| EINECS: 202-327-6 | Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317 | |

- **SVHC**

| | |
|---------|----------------------|
| 84-61-7 | Dicyclohexylphthalat |
|---------|----------------------|

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

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ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Nach Einatmen:**
Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.
Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:** Augen 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:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
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.
- **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.

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- Vor Hitze und direkter Sonnenbestrahlung schützen.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):**
Explosive Stoffe/Gemische und Erzeugnisse mit Explosivstoff
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **8.1 Zu überwachende Parameter**
- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

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

| | |
|-------------------------|--|
| 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 umluftunabhängiges 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.

ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

| | |
|---------------|---------|
| Form: | Pulver |
| Farbe: | Farblos |

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| | |
|--|---|
| · Geruch: | Geruchlos |
| · Geruchsschwelle: | Nicht bestimmt. |
| · pH-Wert: | Nicht bestimmt. |
| · Zustandsänderung | |
| Schmelzpunkt/Gefrierpunkt: | Nicht bestimmt. |
| Siedebeginn und Siedebereich: | Nicht bestimmt. |
| · Flammpunkt: | Nicht anwendbar. |
| · Entzündbarkeit (fest, gasförmig): | Nicht anwendbar. |
| · Zersetzungstemperatur: | Nicht bestimmt. |
| · Selbstentzündungstemperatur: | Das Produkt ist nicht selbstentzündlich. |
| · Explosive Eigenschaften: | 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 ³ |
| · 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: | |
| 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.
- **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.

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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** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
- **Zusätzliche toxikologische Hinweise:**
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität**
Kann das Kind im Mutterleib schädigen.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

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

ABSCHNITT 13: Hinweise zur Entsorgung

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

ABSCHNITT 14: Angaben zum Transport

- **14.5 Umweltgefahren:** Nicht anwendbar.

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- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Stowage Category · Stowage Code · Segregation Code | <p>Nicht anwendbar.</p> <p>D</p> <p>SW1 Protected from sources of heat.</p> <p>SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. However, in relation to goods of class 1, segregation as for the primary hazard.</p> <p>SG35 Stow "separated from" SGG1-acids</p> <p>SG36 Stow "separated from" SGG18-alkalis.</p> |
| <ul style="list-style-type: none"> · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code | <p>Nicht anwendbar.</p> |
| <ul style="list-style-type: none"> · UN "Model Regulation": | <p>entfällt</p> |

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 P1a EXPLOSIVE STOFFE**
- **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**
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3, 30
- **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**
- Keiner der Inhaltsstoffe ist enthalten.
- **VERORDNUNG (EU) 2019/1148**
- **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**
- Keiner der Inhaltsstoffe ist enthalten.
- **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**
- Keiner der Inhaltsstoffe ist enthalten.
- **Verordnung (EG) Nr. 273/2004 betreffend Drogenausgangsstoffe**
- Keiner der Inhaltsstoffe ist enthalten.
- **Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Drogenaustauschstoffen zwischen der Gemeinschaft und Drittländern**
- Keiner der Inhaltsstoffe ist enthalten.
- **Nationale Vorschriften:**
- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**
Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe
- **Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57**
- 84-61-7 | Dicyclohexylphthalat

(Fortsetzung auf Seite 8)

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Druckdatum: 08.03.2022

überarbeitet am: 08.03.2022

Handelsname: TECHNOVIT 4000 POWDER

(Fortsetzung von Seite 7)

· **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

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

· **Relevante Sätze**

H241 Erwärmung kann Brand oder Explosion verursachen.

H317 Kann allergische Hautreaktionen verursachen.

H319 Verursacht schwere Augenreizung.

H360D Kann das Kind im Mutterleib schädigen.

· **Abkürzungen und Akronyme:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Unst. Expl.: Explosive Stoffe/Gemische und Erzeugnisse mit Explosivstoff – Instabil, explosiv

Org. Perox. B: Organische Peroxide – Typ B

Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

Repr. 1B: Reproduktionstoxizität – Kategorie 1B

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

Stampato il: 08.03.2022

Revisione: 08.03.2022

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)

· **UFI:** 6802-405V-300C-EJ35

· **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

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS01 bomba che esplose

Unst. Expl. H200 Esplosivo instabile.



GHS08 pericolo per la salute

Repr. 1B H360D Può nuocere al feto.



GHS07

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

· **2.2 Elementi dell'etichetta**

· **Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

(continua a pagina 2)

Scheda di dati di sicurezza
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Denominazione commerciale: TECHNOVIT 4000 POWDER

(Segue da pagina 1)

Pittogrammi di pericolo

GHS01 GHS07 GHS08

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

dicicloesilftalato
perossido di dibenzoile

Indicazioni di pericolo

H200 Esplosivo instabile.
H317 Può provocare una reazione allergica cutanea.
H360D Può nuocere al feto.

Consigli di prudenza

P250 Evitare le abrasioni/gli urti/gli attriti.
P373 NON utilizzare mezzi estinguenti se l'incendio raggiunge materiali esplosivi.
P380 Evacuare la zona.
P401 Conservare secondo i regolamenti locali/regionali/nazionali/internazionali.
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 ₂) sostanza con un limite comunitario di esposizione sul posto di lavoro | >50-≤100% |
| CAS: 84-61-7 EINECS: 201-545-9 | dicicloesilftalato ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |
| 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% |

SVHC

84-61-7 dicicloesilftalato

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

SEZIONE 4: Misure di primo soccorso

4.1 Descrizione delle misure di primo soccorso**Inalazione:**

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

Contatto con la pelle: Lavare immediatamente con acqua e sapone sciacquando accuratamente.

(continua a pagina 3)

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

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

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**
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.
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

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

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

14808-60-7 quarzo (SiO₂)TWA Valore a lungo termine: 0,025 mg/m³

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:****Forma:** Polvere**Colore:** Incolore· **Odore:** Inodore· **Soglia olfattiva:** Non definito.· **valori di pH:** Non definito.· **Cambiamento di stato****Punto di fusione/punto di congelamento:** Non definito.**Punto di ebollizione iniziale e intervallo di ebollizione:** Non definito.· **Punto di infiammabilità:** Non applicabile.· **Infiammabilità (solidi, gas):** Non applicabile.

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| | |
|--|---|
| · Temperatura di decomposizione: | Non definito. |
| · Temperatura di autoaccensione: | Prodotto non autoinfiammabile. |
| · Proprietà esplosive: | Prodotto non esplosivo. Elevato rischio di esplosione per urto, sfregamento, fuoco o altre sorgenti d'ignizione. |
| · Limiti di infiammabilità: | |
| Inferiore: | Non definito. |
| Superiore: | Non definito. |
| · Tensione di vapore: | Non definito. |
| · Densità a 20 °C: | 2,65 g/cm ³ |
| · Densità relativa | Non definito. |
| · Densità di vapore: | Non definito. |
| · Velocità di evaporazione | Non definito. |
| · Solubilità in/Miscibilità con acqua: | Poco e/o non miscibile. |
| · Coefficiente di ripartizione: n-ottanolo/acqua: | Non definito. |
| · Viscosità: | |
| Dinamica: | Non definito. |
| Cinematica: | Non definito. |
| · Tenore del solvente: | |
| VOC (CE) | 0,00 % |
| Contenuto solido: | 95,0 % |
| · 9.2 Altre informazioni | Non sono disponibili altre informazioni. |

SEZIONE 10: Stabilità e reattività

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

SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.

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

SEZIONE 12: Informazioni ecologiche

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

SEZIONE 13: Considerazioni sullo smaltimento

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

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|--|
| · 14.5 Pericoli per l'ambiente: | Non applicabile. |
| · 14.6 Precauzioni speciali per gli utilizzatori | Non applicabile. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |

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- | | |
|---|------------------|
| · 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC | Non applicabile. |
| · UN "Model Regulation": | non applicabile |

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 P1a** ESPLOSIVI
- **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
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3, 30

· **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**

Nessuno dei componenti è contenuto.

· **REGOLAMENTO (UE) 2019/1148**

· **Allegato I - PRECURSORI DI ESPLOSIVI SOGGETTI A RESTRIZIONI (Valore limite superiore ai fini della concessione di licenze a norma dell'articolo 5, paragrafo 3)**

Nessuno dei componenti è contenuto.

· **Allegato II - PRECURSORI DI ESPLOSIVI SOGGETTI A SEGNALAZIONE**

Nessuno dei componenti è contenuto.

· **Regolamento (CE) n. 273/2004 relativo ai precursori di droghe**

Nessuno dei componenti è contenuto.

· **Regolamento (CE) N. 111/2005 recante norme per il controllo del commercio dei precursori di droghe tra la Comunità e i paesi terzi**

Nessuno dei componenti è contenuto.

· **Disposizioni nazionali:**

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

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

84-61-7 dicicloesilfitalato

· **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.

· **Fraasi rilevanti**

H241 Rischio d'incendio o di esplosione per riscaldamento.

H317 Può provocare una reazione allergica cutanea.

H319 Provoca grave irritazione oculare.

H360D Può nuocere al feto.

· **Abbreviazioni e acronimi:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Unst. Expl.: Esplosivi – Esplosivo instabile
Org. Perox. B: Perossidi organici – Tipo B
Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2
Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1
Repr. 1B: Tossicità per la riproduzione – Categoria 1B

IT

물질안전보건자료 GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **TECHNOVIT 4000 POWDER**
- 상품번호: 14656-02(P), 14656-03(P)
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
- 제품의 권고 용도와 사용상의 제한: TECHNOVIT 4000 POWDER
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 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

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

2 유해성·위험성

- 순물질 또는 혼합물의 분류



폭발, 화염

자기반응성 물질 및 혼합물 – 형식 B H241 가열하면 화재 또는 폭발할 수 있음



건강에 위험

생식독성 – 구분2 H361 태아 또는 생식능력에 손상을 일으킬 것으로 의심됨

특정표적장기 독성 - 반복 노출 – 구분1 H372 장기간 또는 반복노출 되면 장기에 손상을 일으킴



환경

수생환경 유해성 - 급성 – 구분1 H400 수생생물에 매우 유독함

(2 쪽에 계속)

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심한 눈 손상성/눈 자극성 – 구분 2 H319 눈에 심한 자극을 일으킴
 피부 과민성은 – 구분1 H317 알레르기성 피부 반응을 일으킬 수 있음
 수생환경 유해성 - 만성 – 구분3 H412 장기적인 영향에 의해 수생생물에게 유해함

- 라벨표기 요소
- GHS 라벨 요소 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- GHS 그림문자



GHS01 GHS02 GHS07 GHS08 GHS09

- 신호어 위험
- 상표상에 명확히 위험성이 표시된 성분: dicyclohexyl phthalate, 과산화 벤조일
- 유해·위험문구
 - 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 장기에 손상을 일으킴
 - 수생생물에 매우 유독함
 - 장기적인 영향에 의해 수생생물에게 유해함
- 예방조치문구
 - 열·스파크·화염·고열로부터 멀리하시오 - 금연
 - 분진·흙·가스·미스트·증기·스프레이를 흡입하지 마시오.
 - 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으시오.
 - 화재 시 폭발의 위험이 있으므로, 주변 지역의 사람을 대피시키고 거리를 유지하면서 불을 끄시오.
 - 밀봉하여 저장하시오.
 - (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하시오.
- 기타 유해성
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

3 구성성분의 명칭 및 함유량

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

| · 위험 요소: | | |
|------------|--|-----------|
| 14808-60-7 | Quartz (SiO ₂) | >50-≤100% |
| 84-61-7 | dicyclohexyl phthalate | >2.5-≤10% |
| | 생식독성 – 구분1B, H360; 피부 과민성은 – 구분1, H317 | |
| 94-36-0 | 과산화 벤조일 | >2.5-≤10% |
| | 유기과산화물 – 형식 B, H241; 심한 눈 손상성/눈 자극성 – 구분 2, H319; 피부 과민성은 – 구분1, H317 | |

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(3 쪽에계속)

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4 응급조치 요령

- 응급조치요령 내용
- 흡입했을 때:
신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- 피부에 접촉했을 때: 즉시 물과 비누로 씻고 잘 헹군다.
- 눈에 들어갔을 때: 흐르는 물에 눈을 몇 분 동안 씻어낸다.
- 먹었을 때: 증상이 지속될 경우에는 의사와 상담한다.
- 기타 의사의 주의사항:
· 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.
· 즉각적인 의료처리 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- 소화제
- 적절한 소화제: 주 변한 경에 맞는 화재진화방법을 사용한다.
- 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.
- 소방관에 대한 권고사항
- 화재 진압 시 착용할 보호구 및 예방조치: 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급처치 절차 위험 지역으로부터 사람들을 안전하게 이동시킨다.
- 환경 관련 예방조치: 하수도망/해수면위의물/지하수로도달하지 않게 한다.
- 밀폐 및 정화 방법과 소재:
액체가 혼합된 물질(모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
충분한 환기가 되도록 한다.
- 타 섹션 참조
안전 관리에 대한 정보는 제7 장을 참고하십시오.
개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

7 취급 및 저장방법

- 취급:
· 안전 취급을 위한 예방조치
작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.
조심스럽게 용기를 개봉하거나 취급한다.
연무질이 형성되는 것을 피한다.
- 화재 및 폭발 사고 예방대책에 관한 정보:
발화 요소는 멀리 둔다-금연.
타격과 마찰을 피한다.
- 혼합위험성 등 안전 저장 조건
- 보관:
· 안전한 저장 방법: 특별한 요구사항이 없음.
· 하나의 공동 보관 시설에 대한 보관 관련 정보: 필요없음
- 보관 조건에 관한 추가적인 정보:
용기를 새지 않게 밀폐한 채 보관한다.
열이나 직사광선으로부터 보호한다.

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· 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

- 첨단시설 디자인에 대한 추가정보: 더 이상의 자료는 없음. 항목 7 을 참고하시 오.
- 통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:

14808-60-7 Quartz (SiO₂)

| | |
|------------|--|
| OELV (KR) | 장기간의값: 0.05 mg/m ³ 발암성1A,호흡성 |
| BOELV (EU) | 장기간의값: 0.1* mg/m ³ *respirable fraction |
| PEL (US) | 장기간의값: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2 |
| REL (US) | 장기간의값: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A |
| TLV (US) | 장기간의값: 0.025* mg/m ³ *respirable particulate matter, A2 |

· 추 가 정보: 제 조 할 당시에 유 효 한 목 록 을 기초로 사용했다.

- 노출 통제
- 개인 보호구

· 일반적보호조치및위생조치:

더 러 워 지 거 나 음 료 수 가 문 은 옷 은 즉 시 탈의한다.
휴 식 전 이 나 작업이 끝날때마다 손을 씻는다.

· 호흡기 보호:

단 시 간 또 는 경 미 한 오 염 의 경 우에는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

· 손 보호:



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성있어야한다.

테 슣 를 하 지 않 았 기 때 문 에 제 품 / 조 제 / 화 학 혼 합 물 에 적 합 한 장 갑 재 질 에 대 한 추 천 이 없 다.

투과 시간, 침 투 율 과 저 하 를 고 려 해 서 장 갑 재 료 를 선 택 한 다.

· 장갑의재료

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

· 장 갑 재 료 의 투과시 간 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

· 눈 보호: 옮겨부울경우추천할만한보안경.

9 물리화학적 특성

· 기본 물리 및 화학적 특성에 대한 정보

· 일반정보

· 외형

물리적 상태: 가루

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| | |
|----------------------|--|
| · 색: | 색소가없는 |
| · 냄새: | 무취의 |
| · 후각역치 | 알맞지않다. |
| · pH: | 알맞지않다. |
| · 상태변화 | |
| · 녹는점/어는점: | 맞지않는 |
| · 초기 끓는점과 끓는점 범위: | 맞지않는 |
| · 인화점: | 해당사항 없음. |
| · 인화성(고체, 기체): | 해당사항 없음. |
| · 분해 온도: | 알맞지않다. |
| · 자기점화: | 이제품은자연발화성이없다. |
| · 폭발위험: | 이제품은폭발위험성이없다 타격, 마찰, 화염또는다른발화원인을통하여폭발위험성이있는 |
| · 인화 또는 폭발 범위의 상한/하한 | |
| · 아래로: | 알맞지않다. |
| · 위로: | 알맞지않다. |
| · 증기압: | 알맞지않다. |
| · 밀도 의경우 20 °C: | 2.65 g/cm ³ |
| · 비중: | 알맞지않다. |
| · 증기밀도: | 알맞지않다. |
| · 증발 속도: | 알맞지않다. |
| · 용해도: | |
| · 물: | 각각의경우에따라서는거의혼합할수없는 |
| · n 옥탄올/물 분배계수: | 알맞지않다. |
| · 점도: | |
| · 역학적: | 알맞지않다. |
| · 동점성: | 알맞지않다. |
| · 용매내용물 | |
| · VOC (EU) | 0.00 % |
| · 고체의 함량: | 95.0 % |
| · 기타 정보 | 추가적인 정보가 존재하지 않습니다. |

10 안정성 및 반응성

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

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(6 쪽에계속)

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11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:
- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 무자극
- 심한 눈 손상 또는 자극성: 무자극.
- 감각화: 피부접촉을통하여감각화가가능하다.
- 추가적인 독성에 관한 정보:
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.
자극적인
- 다음 종류의 잠재적인 효과에 대한 정보
- CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)
생식독성 – 구분2

12 환경에 미치는 영향

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

13 폐기시 주의사항

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

14 운송에 필요한 정보

| | |
|--------------------|---|
| · 환경적 유해물질: | 해당사항 없음. |
| · 이용자 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids |

(7 쪽에계속)

물질안전보건자료
GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: TECHNOVIT 4000 POWDER

(6 쪽부터계속)

| | |
|---|---|
| · | SG36 Stow "separated from" SGG18-alkalis. |
| · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송 | 해당사항 없음. |
| · UN "모범 규제": | 누락되다 |

15 법적 규제현황

· 산업안전보건법에 의한 규제:

| | |
|--------------|------------------|
| · 제조 등 금지물질: | 어떠한내용물도목록화되어있지않다 |
|--------------|------------------|

| | |
|-----------|------------------|
| · 허가대상물질: | 어떠한내용물도목록화되어있지않다 |
|-----------|------------------|

| | |
|-------------|------------------|
| · 관리대상유해물질: | 어떠한내용물도목록화되어있지않다 |
|-------------|------------------|

| | | |
|------------------|--------------------------|-----|
| · 작업환경측정 대상 유해인자 | 14808-60-7 Quartz (SiO2) | 3A1 |
|------------------|--------------------------|-----|

| | |
|------------------|------------------|
| · 특수건강진단 대상 유해인자 | 어떠한내용물도목록화되어있지않다 |
|------------------|------------------|

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 추가적인 정보가 존재하지 않습니다.

| | | |
|--------------------------------------|--------------------------------|----------|
| · Korean Existing Chemical Inventory | 14808-60-7 Quartz (SiO2) | KE-29983 |
| | 84-61-7 dicyclohexyl phthalate | KE-02215 |
| | 94-36-0 과산화 벤조일 | KE-09889 |

· 화학물질관리법

| | |
|----------|------------------|
| · 사고대비물질 | 어떠한내용물도목록화되어있지않다 |
|----------|------------------|

| | |
|--------|------------------|
| · 금지물질 | 어떠한내용물도목록화되어있지않다 |
|--------|------------------|

| | |
|--------|------------------|
| · 제한물질 | 어떠한내용물도목록화되어있지않다 |
|--------|------------------|

| | |
|--------|-----------------|
| · 유독물질 | 94-36-0 과산화 벤조일 |
|--------|-----------------|

| | |
|--------|--------------------------|
| · 허가물질 | 14808-60-7 Quartz (SiO2) |
| | 94-36-0 과산화 벤조일 |

· 위험물안전관리법 (위험물 및 지정수량) 제 5: 10 킬로그램

| | |
|----------------------|------------------|
| · 등록 또는 신고 면제대상 화학물질 | 어떠한내용물도목록화되어있지않다 |
|----------------------|------------------|

| | |
|--|------------------|
| · '21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질 | 어떠한내용물도목록화되어있지않다 |
|--|------------------|

(8 쪽에계속)

물질안전보건자료 GHS에 따라

인쇄일자: 2022.03.08

개정: 2022.03.08

제품명: TECHNOVIT 4000 POWDER

(7 쪽부터 계속)

· **중점관리물질의 지정**

· **표1 중점관리물질(제2조 관련)**

| | |
|------------|----------------------------|
| 14808-60-7 | Quartz (SiO ₂) |
|------------|----------------------------|

· **표2 중점관리물질(제2조 관련)**

어떠한내용물도목록화되어있지않다

· **GHS 라벨 요소** 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· **GHS 그림문자**



· **신호어 위험**

· **상표상에명확히위험성이표시된성분:**

dicyclohexyl phthalate

과산화 벤조일

· **유해·위험문구**

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 장기에 손상을 일으킴

수생생물에 매우 유독함

장기적인 영향에 의해 수생생물에게 유해함

· **예방조치문구**

열·스파크·화염·고열로부터 멀리하시오 - 금연

분진·흙·가스·미스트·증기·스프레이를 흡입하지 마시오.

눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으시오.

화재 시 폭발의 위험이 있으므로, 주변 지역의 사람을 대피시키고 거리를 유지하면서 불을 끄시오.

밀봉하여 저장하시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하시오.

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

16 그 밖의 참고사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다

하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

· **담당자:**

· **최초 작성일자:** 2022.03.08

· **개정 횟수 및 최종 개정일자:** 1 / 2022.03.08

· **약어와 두문자어:**

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

Sikkerhetsdatablad

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

Trykkdato: 08.03.2022

revidert den: 08.03.2022

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

- **1.1 Produktidentifikator**
- **Handelsnavn:** TECHNOVIT 4000 POWDER
- **Artikkelnummer:** 14656-02(P), 14656-03(P)
- **UFI:** 6802-405V-300C-EJ35
- **1.2 Relevante identifiserte bruksområder for stoffet eller stoffblandingen og bruk som frarådes**
Ikke noe mer relevant informasjon tilgjengelig.
- **Bruk av stoffet/ tilberedning** laboratoriekjemikalier
- **1.3 Opplysninger om leverandøren av sikkerhetsdatabladet**
- **Produsent/leverandør:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Avdeling for nærmere informasjon:** Product safety department
- **1.4 Nødtelefonnummer**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Avsnitt 2: Fareidentifikasjon

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



GHS01 Eksploderende bombe

Unst. Expl. H200 Ustabile eksplosive varer.



GHS08 Helsefare

Repr. 1B H360D Kan gi fosterskader.



GHS07

Skin Sens. 1 H317 Kan utløse en allergisk hudreaksjon.

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



GHS01



GHS07



GHS08

- **Varselord Fare**

(fortsatt på side 2)

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(fortsatt fra side 1)

- **Farebestemmende komponenter ved etikettering:**

dicyclohexyl phthalate

dibenzoylperoksid

- **Faresetninger**

H200 Ustabile eksplosive varer.

H317 Kan utløse en allergisk hudreaksjon.

H360D Kan gi fosterskader.

- **Sikkerhetssetninger**

P250 Må ikke utsettes for sliping/støt/friksjon.

P373 IKKE bekjemp brannen når den når eksplosive varer.

P380 Evakuer området.

P401 Oppbevares i samsvar med lokale/regionale/nasjonale/internasjonale forskrifter.

P405 Oppbevares innelåst.

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

- **2.3 Andre farer**

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

- **PBT:** Ikke brukbar.

- **vPvB:** Ikke brukbar.

Avsnitt 3: Sammensetning/opplysninger om bestanddeler

- **3.2 Kjemisk karakterisering: Stoffblandinger**

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

- **Farlige innholdsstoffer:**

| | | |
|-------------------|---|-----------|
| CAS: 14808-60-7 | Quartz (SiO ₂) | >50-≤100% |
| EINECS: 238-878-4 | Stoff med en unionsgrenseverdi for eksponering på arbeidsplassen | |
| CAS: 84-61-7 | dicyclohexyl phthalate | >2,5-≤10% |
| EINECS: 201-545-9 | ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | |
| CAS: 94-36-0 | dibenzoylperoksid | >2,5-≤10% |
| EINECS: 202-327-6 | ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; ⚠ Skin Sens. 1, H317 | |

- **SVHC**

84-61-7 dicyclohexyl phthalate

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

Avsnitt 4: Førstehjelpstiltak

- **4.1 Beskrivelse av førstehjelpstiltak**

- **Etter innånding:**

Rikelig frisklufttilførsel, søk legehjelp for sikkerhets skyld.

Ved bevisstløshet lagring og transport i stabil sidestilling.

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

- **Etter øyekontakt:** Skyll øynene med åpne øyenlokk i flere minutter under rennende vann.

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

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

Ikke noe mer relevant informasjon tilgjengelig.

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

Ikke noe mer relevant informasjon tilgjengelig.

NO

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Avsnitt 5: Brannsløkkingstiltak

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

Avsnitt 6: Tiltak ved utilsiktede utslipp

- **6.1 Personlige forsiktighetsregler, personlig verneutstyr og nødrutiner** Bring personer i sikkerhet.
- **6.2 Forsiktighetsregler med hensyn til miljø** La ikke produktet komme ned i kloakk/overflatevann/grunnvann.
- **6.3 Metoder og materialer for oppsamling og rensing**
Ta opp stoffet med væskebindende materiale (sand, kiselgur, syrebindemiddel, universalbindemiddel, sagflis).
Sørg for tilstrekkelig ventilasjon.
- **6.4 Henvisning til andre avsnitt**
Informasjoner om sikker håndtering, se kapittel 7.
Informasjoner om personlig beskyttelsesutstyr, se kapittel 8.
Informasjoner om bortskaffelse/deponering, se kapittel 13.

Avsnitt 7: Håndtering og lagring

- **7.1 Forsiktighetsregler for sikker håndtering**
Sørg for god ventilasjon/avsugning på arbeidsplassen.
Beholderne må åpnes og håndteres forsiktig.
Unngå aerosoldannelse.
- **Henvisninger om brann- og eksplosjonsvern:**
Bruk av åpen ild forbudt - røyking forbudt.
Unngå slag og gnissing.
- **7.2 Vilkår for sikker lagring, herunder eventuelle uforenligheter**
- **Lagring:**
- **Krav til lagerrom og beholdere:** Ingen spesielle krav.
- **Informasjoner om felles lagring:** Ikke nødvendig.
- **Ytterligere informasjoner om lagervilkårene:**
Hold beholderne tett tillukket.
Beskyttes mot varme og direkte solpåvirkning.
- **7.3 Særlig(e) sluttanvendelse(r)** Ikke noe mer relevant informasjon tilgjengelig.

Avsnitt 8: Eksponeringskontroll / personlig verneutstyr

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

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

14808-60-7 Quartz (SiO₂)

AG Langtidsverdi: 0,3* 0,05** 0,1*** mg/m³

*Total: K, **resp.støv: KG; ***bryting til 01.02.22

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

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- **8.2 Eksponeringskontroll**
- **Personlig verneutstyr:**
- **Generelle verne- og hygienetiltak:**
Fjern omgående forurensede, gjennomvætede klær.
Vask hendene før arbeidspauser og ved arbeidets slutt.
- **Åndedrettsvern:**
Ved korttidig eller liten belastning åndedrettsfilterapparat; ved intensiv eller lengre utsetting: bruk omluft-uavhengig åndedrettsbeskyttelsesapparat.
- **Håndvern:**



Beskyttelseshansker

- Hanskematerialet må være ugjennomtrengelig og bestandig overfor produktet /stoffet /blandingen.
På grunn av manglende tester kan det ikke gis noen anbefaling om hanskemateriale for produktet / tilberedningsprosessen/kjemikalieblanding.
Hanskematerialet velges under hensyntagen til holdbarhetstid, gjennomtrengelighet og degradering.
- **hanskemateriale**
Valget av egnet hanske er ikke bare avhengig av materiale, men også av andre kvalitetskjenner og er forskjellig fra produsent til produsent. Da produktet representerer en sammensetning av flere stoffer, kan holdbarheten av hanskematerialet ikke forhåndsberegnes, og denne må testes før bruk.
 - **gjennomtrengingstid for hanskemateriale**
Den nøyaktige holdbarhetstiden må bringes på det rene hos hanskeprodusenten og overholdes.
 - **Øyevern:** Vernebrille anbefales ved omfylling.

Avsnitt 9: Fysiske og kjemiske egenskaper

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

| | |
|----------------------|---------------|
| · Form: | Pulver |
| · Farge: | Fargeløs |
| · Lukt: | Uten lukt |
| · Lukterskel: | Ikke bestemt. |
- **pH-verdi:** Ikke bestemt.
- **Tilstandsending**

| | |
|--|---------------|
| · Smeltepunkt/frysepunkt: | Ikke bestemt. |
| · Startkokepunkt og kokeområde: | Ikke bestemt. |
- **Flammepunkt:** Ikke brukbar.
- **Antennelighet (fast stoff, gass):** Ikke brukbar.
- **Nedbrytingstemperatur:** Ikke bestemt.
- **Selvantennelsestemperatur:** Produktet er ikke selvantennelig.
- **Eksplorative egenskaper:** Produktet er ikke eksplosjonsfarlig.
Meget eksplosjonsfarlig ved støt, gnidning, ild eller andre antennelseskilder
- **Ekspljosjonsgrenser:**

| | |
|-----------------|---------------|
| · Nedre: | Ikke bestemt. |
|-----------------|---------------|

(fortsatt på side 5)

NO

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| | |
|---|---|
| Øvre | Ikke bestemt. |
| · Damptrykk: | Ikke bestemt. |
| · Tetthet ved 20 °C: | 2,65 g/cm ³ |
| · Relativ tetthet: | Ikke bestemt. |
| · Damp tetthet: | Ikke bestemt. |
| · Fordampingshastighet: | Ikke bestemt. |
| · Løslighet i / blandbarhet med vann: | Ikke, hhv. lite blandbar. |
| · Fordelingskoeffisient; n-oktanol/vann: | Ikke bestemt. |
| · Viskositet: | |
| Dynamisk: | Ikke bestemt. |
| Kinematisk: | Ikke bestemt. |
| · Løsningsmiddelandel: | |
| VOC (EF) | 0,00 % |
| Andel faste stoffer: | 95,0 % |
| · 9.2 Andre opplysninger | Ikke noe mer relevant informasjon tilgjengelig. |

Avsnitt 10: Stabilitet og reaktivitet

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

Avsnitt 11: Toksikologiske opplysninger

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

NO

(fortsatt på side 6)

Sikkerhetsdatablad

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

Trykkdato: 08.03.2022

revidert den: 08.03.2022

Handelsnavn: **TECHNOVIT 4000 POWDER**

(fortsatt fra side 5)

Avsnitt 12: Økologiske opplysninger

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

Avsnitt 13: Sluttbehandling

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

Avsnitt 14: Transportopplysninger

| | |
|--|--|
| · 14.5 Miljøfarer | Ikke brukbar. |
| · 14.6 Særlige forsiktighetsregler ved bruk | Ikke brukbar. |
| · 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. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · 14.7 Bulktransport i henhold til vedlegg II til MARPOL 73/78 og IBC-regelverket | Ikke brukbar. |
| · UN "Model Regulation": | bortfaller |

Avsnitt 15: Opplysninger om regelverk

- **15.1 Særlige bestemmelser / særskilt lovgivning om sikkerhet, helse og miljø for stoffet eller stoffblandingen**
- **Direktiv 2012/18/EU**
- **Spesifiserte farlige stoffer - VEDLEGG I** ingen av innholdsstoffene er listet opp
- **Seveso kategori P1a**
- **Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på lavere nivå 10 t**
- **Mengdegrense (i tonn) for anvendelsen av krav til virksomheter på høyere nivå 50 t**

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Sikkerhetsdatablad

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- **Forordning (EF) nr. 1907/2006 VEDLEGG XVII Begrensninger: 3, 30**

- **Direktiv 2011/65/EF om begrensning av bruken av visse farlige stoffer i elektrisk og elektronisk utstyr - Vedlegg II**

ingen av innholdsstoffene er listet opp

- **Forordning (EF) nr. 273/2004 om utgangsstoffer for narkotika**

ingen av innholdsstoffene er listet opp

- **Forordning (EF) nr. 111/2005 om fastsettelse av regler for overvåking av handelen med utgangsstoffer for narkotika mel-lom Fellesskapet og tredjestater**

ingen av innholdsstoffene er listet opp

- **Nasjonale forskrifter:**

- **Andre forskrifter, restriksjoner og forbudsforordninger**

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

84-61-7 dicyclohexyl phthalate

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

Avsnitt 16: Andre opplysninger

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

- **Relevante satser**

H241 Brann- eller eksplosjonsfarlig ved oppvarming.

H317 Kan utløse en allergisk hudreaksjon.

H319 Gir alvorlig øyeirritasjon.

H360D Kan gi fosterskader.

- **Forkortelser og akronymer:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Unst. Expl.: Eksplosive varer – Ustabil eksplosiv vare

Org. Perox. B: Organiske peroksider – Type B

Eye Irrit. 2: Alvorlig øyeskade/øyeirritasjon – Kategori 2

Skin Sens. 1: Hudsensibilisering – Kategori 1

Repr. 1B: Reproduksjonstoksitet – Kategori 1B

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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)

· **UFI:** 6802-405V-300C-EJ35

· **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

www.emsdiasum.com

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

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

· 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla

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



GHS01 bomba explotando

Unst. Expl. H200 Explosivo inestable.



GHS08 peligro para la salud

Repr. 1B H360D Puede dañar al feto.



GHS07

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

· 2.2 Elementos de la etiqueta

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

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

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· **Pictogramas de peligro**

GHS01 GHS07 GHS08

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

ftalato de dicitlohexilo

peróxido de dibenzoilo

· **Indicaciones de peligro**

H200 Explosivo inestable.

H317 Puede provocar una reacción alérgica en la piel.

H360D Puede dañar al feto.

· **Consejos de prudencia**

P250 Evitar abrasiones/choques/fricciones.

P373 NO luchar contra el incendio cuando el fuego llega a los explosivos.

P380 Evacuar la zona.

P401 Almacenar conforme a la reglamentación local/regional/nacional/internacional.

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 ₂) sustancia a la que se aplica un límite comunitario de exposición en el lugar de trabajo | >50-≤100% |
| CAS: 84-61-7 EINECS: 201-545-9 | ftalato de dicitlohexilo ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | >2,5-≤10% |
| 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% |

· **SVHC**

84-61-7 ftalato de dicitlohexilo

· **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.

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

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** 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.
- **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

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

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

14808-60-7 cuarzo (SiO₂)LEP Valor de larga duración: 0,05 mg/m³

*Fracción resp:n,d,y

· **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

Color: Incoloro

· **Olor:** Inodoro

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

Punto de fusión/punto de congelación: Indeterminado.

Punto inicial de ebullición e intervalo de ebullición: Indeterminado.

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

· **Inflamabilidad (sólido, gas):** No aplicable.

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| | |
|---|---|
| · Temperatura de descomposición: | No determinado. |
| · Temperatura de auto-inflamación: | El producto no es autoinflamable. |
| · Propiedades explosivas: | El producto no es explosivo. Alto riesgo de explosión por choque, fricción, fuego u otras fuentes de ignición. |
| · Límites de explosión: | |
| Inferior: | No determinado. |
| Superior: | No determinado. |
| · Presión de vapor: | No determinado. |
| · Densidad a 20 °C: | 2,65 g/cm ³ |
| · Densidad relativa | No determinado. |
| · Densidad de vapor | No determinado. |
| · Tasa de evaporación: | No determinado. |
| · Solubilidad en / miscibilidad con agua: | Poco o no mezclable. |
| · Coefficiente de reparto: n-octanol/agua: | No determinado. |
| · Viscosidad: | |
| Dinámica: | No determinado. |
| Cinemática: | No determinado. |
| · Concentración del disolvente: | |
| VOC (CE) | 0,00 % |
| Contenido de cuerpos sólidos: | 95,0 % |
| · 9.2 Otros datos | No existen más datos relevantes disponibles. |

SECCIÓN 10: Estabilidad y reactividad

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

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Lesiones o irritación ocular graves**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.

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- **Indicaciones toxicológicas adicionales:**
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción**
Puede dañar al feto.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

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

SECCIÓN 13: Consideraciones relativas a la eliminación

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

SECCIÓN 14: Información relativa al transporte

- | | |
|---|-------------------------------------|
| · 14.5 Peligros para el medio ambiente: | No aplicable. |
| · 14.6 Precauciones particulares para los usuarios | No aplicable. |
| · Stowage Category | D |
| · Stowage Code | SW1 Protected from sources of heat. |

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| | |
|---|--|
| · Segregation Code | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC | No aplicable. |
| · "Reglamentación Modelo" de la UNECE: | 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 P1a EXPLOSIVOS**
- **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**
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3, 30**

- **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**

ninguno de los componentes está incluido en una lista

- **REGLAMENTO (UE) 2019/1148**

- **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**

ninguno de los componentes está incluido en una lista

- **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**

ninguno de los componentes está incluido en una lista

- **Reglamento (CE) no 273/2004 sobre precursores de drogas**

ninguno de los componentes está incluido en una lista

- **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**

ninguno de los componentes está incluido en una lista

- **Disposiciones nacionales:**

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

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

84-61-7 | ftalato de dicitclohexilo

- **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.

(se continua en página 8)

Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

fecha de impresión 08.03.2022

Revisión: 08.03.2022

Nombre comercial: TECHNOVIT 4000 POWDER

(se continua en página 7)

· Frases relevantes*H241 Peligro de incendio o explosión en caso de calentamiento.**H317 Puede provocar una reacción alérgica en la piel.**H319 Provoca irritación ocular grave.**H360D Puede dañar al feto.***· Abreviaturas y acrónimos:***GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Unst. Expl.: Explosivos – Explosivo inestable**Org. Perox. B: Peróxidos orgánicos – Tipo B**Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Repr. 1B: Toxicidad para la reproducción – Categoría 1B*

Güvenlik bilgi formu
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Form No.: 14656-02(P)

Yeniden düzenleme tarihi: 08.03.2022

Bölüm 1: Maddenin/karışımın ve şirketin/dağıtıcının tanımı

- **1.1 Madde/Karışım kimliği**
- **Ticari adı: TECHNOVIT 4000 POWDER**
- **Mal numarası: 14656-02(P), 14656-03(P)**
- **UFI: 6802-405V-300C-EJ35**
- **1.2 Maddenin veya karışımın ilgili tanımlanmış kullanımları ve tavsiye edilmeyen kullanımları**
Daha başka önemli bilgi mevcut değildir.
- **Maddenin Kullanımı / Hazırlanması** Laboratuvarında kullanılan kimyasal maddeler
- **1.3 Güvenlik bilgi formu sağlayıcısının detayları**
- **Üretici / Teslimatı yapan:**
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
- **Güvenlik hakkında bilgiler veren kesim: Product safety department**
- **1.4 Acil telefon numarası**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

Bölüm 2: Zararların tanımı

- **2.1 Madde veya karışımın sınıflandırılması**
- **Düzenlemeye göre sınıflandırma (EC) No 1272/2008**



GHS01 Patlayan bomba

Unst. Expl. H200 Kararsız patlayıcı.



GHS08 Sağlık zararlılığı

Repr. 1B H360D Doğmamış çocukta hasara yol açabilir.



GHS07

Skin Sens. 1 H317 Alerjik cilt reaksiyonlarına yol açabilir.

- **2.2 Etiket bilgileri**
- **Yönetmelik (EC) No 1272/2008'e göre etiketleme**
Ürün SEA yönetmeliğine göre sınıflandırılmış ve etiketlenmiştir.
- **Zararlılık İşaretleri**



GHS01



GHS07



GHS08

(Devamı sayfa 2 'da)

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(Sayfa 1 'nin devamı)

- **Uyarı Kelimesi Tehlike**
- **Etiketlendirme için tehlikeyi belirleyici bileşenler:**
disikloheksilftalat
dibenzoilperoksit
- **Zararlılık İfadesi**
H200 Kararsız patlayıcı.
H317 Alerjik cilt reaksiyonlarına yol açabilir.
H360D Doğmamış çocukta hasara yol açabilir.
- **Önlem İfadesi**
P250 Ögütme/şok/sürtünmeye maruz bırakmayın.
P373 Yangın patlayıcılara ulaştığında, yangına MÜDAHALE ETMEYİN.
P380 Alanı boşaltın.
P401 Yerel/gölgesel/ulusal/uluslararası mevzuata göre saklayın.
P405 Kilit altında saklayın.
P501 İçeriği/kabı yerel/bölgesel/ulusal/uluslararası mevzuata uygun şekilde bertaraf edin.
- **2.3 Diğer zararlar**
- **PBT ve vPvB değerlendirmesi sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.

Bölüm 3: Bileşimi/İçindekiler hakkında bilgi

- **3.2 Karışımlar**
- **Tarifi:** Tehlikesiz katkılar ihtiva eden ve aşağıda belirtilen maddelerden oluşan karışım.

· **İhtiva ettiği tehlikeli maddeler:**

| | | |
|--------------------------------------|--|-----------|
| CAS: 14808-60-7 EINECS: 238-878-4 | Quartz (SiO ₂) İşyeri maruz kalma limiti | %>50-≤100 |
| CAS: 84-61-7 EINECS: 201-545-9 | disikloheksilftalat ⚠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317 | %>2,5-≤10 |
| CAS: 94-36-0 EINECS: 202-327-6 | dibenzoilperoksit ⚠ Org. Perox. B, H241; ⚠ Eye Irrit. 2, H319; ⚠ Skin Sens. 1, H317 | %>2,5-≤10 |

· **SVHC**

84-61-7 disikloheksilftalat

- **Ek uyarılar:** belirtilmiş olan tehlike işaretlerinin metnini Bölüm 16'dan alınız

Bölüm 4: İlk yardım önlemleri

- **4.1 İlk yardım önlemlerinin tanıtımı**
- **Teneffüs ettikten sonra:**
Bolca temiz hava alması sağlanarak her ihtimale karşı doktora başvurulmalıdır.
Baygınlık halinde yatırılması ve taşınması sabit yan pozisyonunda olmalıdır.
- **Cilde temas ettikten sonra:** Derhal su ve sabunla yıkayarak iyice durulayınız.
- **Gözlere temas ettikten sonra:**
Gözleri, gözkapakları açık bir şekilde birkaç dakika süreyle akan suyun altına tutunuz.
- **Yuttuktan sonra:** Şikâyetlerin devamı halinde doktora başvurunuz.
- **4.2 Akut ve sonradan görülen en önemli belirtiler ve etkiler** Daha başka önemli bilgi mevcut değildir.

(Devamı sayfa 3 'da)

Güvenlik bilgi formu
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(Sayfa 2 'nin devamı)

- 4.3 Acil tıbbi müdahale ve özel tedavi gereği için işaretler Daha başka önemli bilgi mevcut değildir.

Bölüm 5: Yangınla mücadele önlemleri

- 5.1 Yangın söndürücüler
- Elverişli söndürücü maddeler: Yangın söndürme önlemlerini çevreye uydurunuz.
- 5.2 Madde veya karışımdan kaynaklanan özel zararlar Daha başka önemli bilgi mevcut değildir.
- 5.3 Yangın söndürme ekipleri için tavsiyeler
- Özel koruyucu teçhizat: Özel önlemlerin alınması gerekmez.

Bölüm 6: Kaza sonucu yayılma önlemleri

- 6.1 Kişisel önlemler, koruyucu ekipman ve acil müdahale planı Şahısları güvenli bir yere götürünüz.
- 6.2 Çevresel önlemler Kanalizasyona/Yüzeysel suya/Yeraltı suyuna karışmasını önleyiniz.
- 6.3 Kontrol altında tutma ve temizleme için yöntem ve malzemeler
Sıvı bağlayıcı malzemeyle (Kum, diyatomit, asit bağlayıcı, genel bağlayıcı, un halinde testere talaşı) ile eminiz. Yeterli havalandırma sağlayınız.
- 6.4 Diğer bölümlere atflar
Güvenli kullanım ile ilgili bilgileri 7. bölümden alınız.
Kişisel koruyucu teçhizat ile ilgili bilgileri 8. bölümden alınız.
Tasfiye ile ilgili bilgileri 13. bölümden alınız.

Bölüm 7: Elleçleme ve depolama

- 7.1 Güvenli elleçleme için önlemler
Çalışılan yerin iyi havalanmasını / havanın iyi emilmesini sağlayınız.
Kapları açarken, taşırken ya da yere bırakırken dikkatli davranınız.
Aerosol (bir gazın içinde sis şeklinde dağılmış sıvı) oluşumunu önleyiniz.
- Yangın ve patlamadan korunmak için uyarılar:
Tutuşturucu cisimlerden uzak tutunuz - sigara içmeyiniz.
Çarpmadan ve sürtünmeden kaçınız.
- 7.2 Birlikte bulunmaması gereken maddeleri de içeren güvenli depolama koşulları
- Depolama:
· Depolarda ve kaplarda aranan özellikler: Belirli şartlar aranmaz.
- Birarada depolama ile ilgili uyarılar: Gerekli değil.
- Depolama şartları ile ilgili diğer bilgiler:
Kabı sızdırmayacak şekilde kapalı tutunuz.
Sıcaktan ve güneş ışınlarından koruyunuz.
- 7.3 Belirli son kullanımlar Daha başka önemli bilgi mevcut değildir.

Bölüm 8: Maruz kalma kontrolü/kişisel korunma

- 8.1 Kontrol parametreleri
- Teknik tesisatların şekillendirilmesi ile ilgili ek bilgiler: Başka bilgi yoktur, madde 7 'den bakınız.

(Devamı sayfa 4 'da)

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(Sayfa 3 'nin devamı)

· **Çalışma yeri ile ilgili, kontrol edilmesi gereken sınır değerleri olan bileşenler:****14808-60-7 Quartz (SiO₂)**

| | |
|------------|---|
| BOELV (EU) | Uzun zaman değeri: 0,1* mg/m ³ *respirable fraction |
|------------|---|

· **Ek uyarılar:** Düzenlendiği tarihte geçerli listeler esas alınmıştır.· **8.2 Maruz kalma kontrolü**· **Kişisel koruyucu teçhizat:**· **Genel koruyucu ve sıhhi önlemler:**

Kirlenmiş, sıvı bulaşmış giyim eşyalarını derhal çıkartınız.

Molalardan önce ve mesai sonunda ellerinizi yıkayınız.

· **Nefes koruyucu önlemler:**

Kısa süreli ya da düşük ölçüde olumsuz tesir altında kalındığında nefes filtre aleti, yoğun bir şekilde ya da uzun süre etkisi altında kalındığında çevredeki havadan bağımsız olan nefes koruyucu cihaz kullanınız.

· **Elleri koruyucu:**

Koruyucu eldivenler

Eldiven malzemesi ürün / malzeme / hazırlanan madde ile ilgili olarak geçirmez ve dayanıklı olmalıdır.

Testlerin yapılmamış olması nedeni ile ürün / hazırlanmış madde / kimyasal karışım için lâzım olan eldiven imalatında kullanılması gereken malzeme ile ilgili herhangi bir tavsiye yapılamamaktadır.

Eldiven imalatı için kullanılan malzemelerin seçiminde delinme sürelerinin, geçirgenlik oranlarının ve bozulmanın göz önüne alınması gereklidir.

· **Eldiven malzemesi**

Uygun eldivenin seçiminde yalnız imalat malzemesi değil, aynı zamanda diğer kalite özellikleri de dikkate alınmalıdır ve bunlar imalatçıdan imalatçıya değişiklik göstermektedir. Her ürün birçok malzemenin birleşiminden meydana geldiği için eldivenlerin dayanıklılığı önceden hesaplanamamaktadır ve dolayısı ile her eldiven kullanılmadan önce kontrole tabi tutulmalıdır.

· **Eldiven malzemesine nüfuz etme süresi**

Kesin delinme (aşınma) süresi eldiven imalatçısından öğrenilmeli ve bu süreler riayet edilmelidir.

· **Gözleri koruyucu:** Bir yerden başka yere dolum yaparken koruyucu gözlük tavsiye olunur.**Bölüm 9: Fiziksel ve kimyasal özellikler**· **9.1 Temel fiziksel ve kimyasal özellikler hakkında bilgi**· **Genel bilgiler**· **Görünüm**

| | |
|-------------------|----------------|
| Biçim: | Toz |
| Renk: | Renksiz |
| Koku: | Kokusuz |
| Koku eşiği | Belirli değil. |

· **pH - değeri:** Belirli değil.· **Durum değişikliği**

Erime noktası/donma noktası Belirlenmemiştir.

İlk kaynama noktası ve kaynama aralığı Belirlenmemiştir.

· **Parlama noktası** Uygulanamaz.

(Devamı sayfa 5 'da)

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(Sayfa 4 'nin devamı)

| | |
|--|--|
| · Alevlenirlik (katı, gaz) | Uygulanamaz. |
| · Bozunma sıcaklığı | Belirli değil. |
| · Kendiliğinden tutuşma sıcaklığı | Ürün kendiliğinden tutuşmaz niteliktedir. |
| · Patlayıcı özellikler | Ürünün patlama tehlikesi yoktur. Şok, sürtünme, alev ve diğer tutuşturucu kaynakları ile temasında çok ciddi patlama riski. |
| · Patlama sınırları: Alt: Üst: | Belirli değil. Belirli değil. |
| · Buhar basıncı: | Belirli değil. |
| · Yoğunluk 20 °C'de: Bağıl yoğunluk Buhar yoğunluğu Buharlaşma hızı | 2,65 g/cm ³ Belirli değil. Belirli değil. Belirli değil. |
| · Çözülme kabiliyeti / karışma kabiliyeti suyla: | Karıştırılmaz ya da düşük ölçüde karıştırılabilir. |
| · Dağılım katsayısı: n-oktanol/su | Belirli değil. |
| · Akışkanlık Dinamik: Kinematik: | Belirli değil. Belirli değil. |
| · Çözücü madde oranı: VOC (CE) | 0,00 % |
| · Katı madde oranı: | %95.0 |
| · 9.2 Diğer bilgiler | Daha başka önemli bilgi mevcut değildir. |

Bölüm 10: Kararlılık ve tepkime

- 10.1 Tepkime Daha başka önemli bilgi mevcut değildir.
- 10.2 Kimyasal kararlılık
- Termik ayrışma / kaçınılması gereken şartlar: Usulüne uygun şekilde kullanıldığında ayrışma olmaz.
- 10.3 Zararlı reaksiyon olasılığı Tehlikeli reaksiyonları duyulmamıştır.
- 10.4 Kaçınılması gereken durumlar Daha başka önemli bilgi mevcut değildir.
- 10.5 Uyumsuz malzemeler Daha başka önemli bilgi mevcut değildir.
- 10.6 Zararlı bozunma ürünleri Ayrışmada oluşan tehlikeli ürünler duyulmamıştır.

Bölüm 11: Toksikolojik bilgiler

- 11.1 Toksikolojik etkiler hakkında bilgi
- Akut toksisite Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- Asli tahriş edici etkisi:
- Cilt aşınması/tahrişi Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- Ciddi göz hasarları/tahrişi Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

(Devamı sayfa 6 'da)

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(Sayfa 5 'nin devamı)

- **Solunum yolları veya cilt hassaslaşması**
Alerjik cilt reaksiyonlarına yol açabilir.
- **Aşağıdaki grupların potansiyel etkilerine dair bilgiler:**
- **CMR-etkileri (kanser üretici, irsiyet değiştirici ve üremeyi tehdit edici etki)**
- **Eşey hücre mutajenitesi** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Kanserojenite** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Üreme sistemi toksisitesi**
Doğmamış çocukta hasara yol açabilir.
- **BHOT - tek maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **BHOT - tekrarlı maruz kalma** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.
- **Aspirasyon zararı** Mevcut bilgilere göre, sınıflandırma kriterlerini karşılamamaktadır.

Bölüm 12: Ekolojik bilgiler

- **12.1 Toksikite**
- **Su toksisitesi:** Daha başka önemli bilgi mevcut değildir.
- **12.2 Kalıcılık ve bozunabilirlik** Daha başka önemli bilgi mevcut değildir.
- **12.3 Biyobirikim potansiyeli** Daha başka önemli bilgi mevcut değildir.
- **12.4 Toprakta hareketlilik** Daha başka önemli bilgi mevcut değildir.
- **Diğer ekolojik uyarılar:**
- **Genel uyarılar:**
Suyu tehdit sınıfı 1 (): suyu hafif tehdit edicidir
Sulandırılmamış vaziyette ya da büyük miktarlarda yeraltı suyuna, duran ve akan sulara ve kanalizasyona ulaşmasını " önleyiniz.
- **12.5 PBT ve vPvB değerlendirmesinin sonuçları**
- **PBT:** Uygulanamaz.
- **vPvB:** Uygulanamaz.
- **12.6 Diğer olumsuz etkiler** Daha başka önemli bilgi mevcut değildir.

Bölüm 13: Bertaraf etme bilgileri

- **13.1 Atık işleme yöntemleri**
- **Tavsiye:** Ev çöpüyle beraber tasfiye edilmesi yasaktır. Kanalizasyona ulaşmasını önleyiniz.
- **Temizlenmemiş ambalajlar:**
- **Tavsiye:** Tasfiyesi resmi makamların yönetmeliklerine göre yapılır.

Bölüm 14: Taşımacılık bilgisi

- | | |
|---|-------------------------------------|
| · 14.5 Çevresel zararlar | Uygulanamaz. |
| · 14.6 Kullanıcılar için özel önlemler | Uygulanamaz. |
| · Stowage Category | D |
| · Stowage Code | SW1 Protected from sources of heat. |

(Devami sayfa 7 'da)

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(Sayfa 6'nın devamı)

| | |
|---|--|
| · Segregation Code | SG1 For packages carrying a subsidiary risk of class 1, segregation as for class 1, division 1.3. However, in relation to goods of class 1, segregation as for the primary hazard. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. |
| · 14.7 MARPOL 73/78 EK II ve IBC Koduna göre Toplu Taşımacılık | Uygulanamaz. |
| · UN "Model Düzenleme": | kalkmıştır |

Bölüm 15: Mevzuat bilgisi

- **15.1 Madde veya karışım için güvenlik, sağlık ve çevresel düzenlemeler/mevzuat**
- **2012/18/EU sayılı Direktifi**
- **Adlandırılmış tehlikeli maddeler - EK-1 İçerdiği maddelerin hiçbiri listelenmemiştir.**
- **Kategori „Seveso“ P1a**
- **Tehlikeli maddelerin niteleyici miktarı (ton) - alt seviye 10 t**
- **Tehlikeli maddelerin niteleyici miktarı (ton) - üst seviye 50 t**
- **1907/2006/EC sayılı Yönetmelik EK-XVII Conditions of restriction: 3, 30**

· **Elektrikli ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlandırılmasına Dair Yönetmelik (2011/65/EU) - Ek-2**

İçerdiği maddelerin hiçbiri listelenmemiştir.

· **Yönetmelik (EC) No 273/2004**

İçerdiği maddelerin hiçbiri listelenmemiştir.

· **Yönetmelik (EC) No 111/2005**

İçerdiği maddelerin hiçbiri listelenmemiştir.

· **Ulusal hükümler:**

· **Diğer düzenlemeler, sınırlamalar ve yasaklayıcı düzenlemeler.**

· **Yüksek Önem Arz Eden Maddeler (SVHC) - REACH, Madde 57**

84-61-7 disiklohekzilfalat

· **15.2 Kimyasal güvenlik değerlendirmesi: Bir Kimyasal güvenlik değerlendirmesi yapılmamıştır.**

Bölüm 16: Diğer bilgiler

Veriler bugünkü bilgi durumumuza istinat etmektedir, ancak ürün özellikleri ile ilgili teminat teşkil etmezler ve akdi bir hukuki ilişki tesis etmezler.

· **Önemli terkipleri**

H241 Isıtma yangına veya patlamaya yol açabilir.

H317 Alerjik cilt reaksiyonlarına yol açabilir.

H319 Ciddi göz tahrişine yol açar.

H360D Doğmamış çocukta hasara yol açabilir.

· **Kısaltmalar ve:**

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

(Devamı sayfa 8 'da)

Güvenlik bilgi formu
23 Haziran 2017 tarihli, 30105 sayılı, „Kimyasalların Kaydı,
Değerlendirilmesi, İzni Ve Kisitlanması Hakkında Yönetmelik,
Madde 27“ hükümlerine uygun düzenlenmiştir

Baskı tarihi: 08.03.2022

Form No.: 14656-02(P)

Yeniden düzenleme tarihi: 08.03.2022

Ticari adı: TECHNOVIT 4000 POWDER

(Sayfa 7 'nin devamı)

*CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Unst. Expl.: Patlayıcılar – Kararsız patlayıcı**Org. Perox. B: Organik peroksitler – B Tipi**Eye Irrit. 2: Ciddi göz hasarı/göz tahrişi – Kategori 2**Skin Sens. 1: Cilt hassaslaştırıcılığı – Kategori 1**Repr. 1B: Üreme sistemi toksisitesi – Kategori 1B*

TR