

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/14/2021

Reviewed on 10/14/2021

1 Identification

- **Product identifier**
- **Trade name:** Crystalbond 509
- **Article number:** 50400-01, 50400-05, 50400-55, 50400-50
- **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**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2B H320 Causes eye irritation.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
phthalic anhydride
- **Hazard statements**
Causes skin and eye irritation.
- **Precautionary statements**
Wash thoroughly after handling.
Wear protective gloves.
If on skin: Wash with plenty of water.
Specific treatment (see on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Get medical advice/attention.

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- **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.

- **Dangerous components:**

| | | |
|----------|--------------------|-----------|
| 85-44-9 | phthalic anhydride | >50-≤100% |
| 107-21-1 | ethanediol | >25-≤50% |

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a 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.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

| | | |
|----------|--------------------|----------------------|
| 85-44-9 | phthalic anhydride | 18 mg/m ³ |
| 107-21-1 | ethanediol | 30 ppm |

- **PAC-2:**

| | | |
|----------|--------------------|----------------------|
| 85-44-9 | phthalic anhydride | 56 mg/m ³ |
| 107-21-1 | ethanediol | 150 ppm |

- **PAC-3:**

| | | |
|----------|--------------------|--------------------------|
| 85-44-9 | phthalic anhydride | 10,000 mg/m ³ |
| 107-21-1 | ethanediol | 900 ppm |

7 Handling and storage

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

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:**

| | |
|------------------------------------|---|
| 85-44-9 phthalic anhydride | |
| PEL | Long-term value: 12 mg/m ³ , 2 ppm |
| REL | Long-term value: 6 mg/m ³ , 1 ppm |
| TLV | Short-term value: 0.005* mg/m ³ , 0.0009* ppm Long-term value: 0.002* mg/m ³ , 0.0003* ppm |
| *inhalable vapor; Skin; DSEN, RSEN | |

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107-21-1 ethanediol

TLV Short-term value: 10** mg/m³, 50* ppm
 Long-term value: 25* ppm
 *vapor fraction:**inh. fraction, aerosol only

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

· **Form:** Solid
 · **Color:** Amber colored
 · **Odor:** Odorless
 · **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

· **Melting point/Melting range:** 68.3 °C (154.9 °F)

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| | |
|---|---|
| · Boiling point/Boiling range: | >100 °C (>212 °F) |
| · Flash point: | >263 °C (>505.4 °F) |
| · Flammability (solid, gaseous): | Not determined. |
| · Ignition temperature: | 410 °C (770 °F) |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| · Lower: | 1.7 Vol % |
| · Upper: | 53 Vol % |
| · Vapor pressure at 20 °C (68 °F): | 0.1 hPa |
| · Density at 20 °C (68 °F): | 1.31 g/cm ³ (10.93195 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor density | Not applicable. |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with | |
| · Water: | Insoluble. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| · Dynamic: | Not applicable. |
| · Kinematic: | Not applicable. |
| · Solvent content: | |
| · VOC content: | 0.00 % |
| · Solids content: | 78.0 % |
| · 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:**

| | | |
|---|------|-------------------|
| · LD/LC50 values that are relevant for classification: | | |
| 85-44-9 phthalic anhydride | | |
| Oral | LD50 | 4,200 mg/kg (rat) |

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107-21-1 ethanediol

| | | |
|--------|------|----------------------|
| Oral | LD50 | 5,840 mg/kg (rat) |
| Dermal | LD50 | 9,530 mg/kg (rabbit) |

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12 Ecological information

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

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14 Transport information

| | |
|--|--|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Stowage Category | A |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Quantity limitations | On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | Void |

15 Regulatory information

| | |
|---|---------------------------------------|
| · Safety, health and environmental regulations/legislation specific for the substance or mixture | |
| · Sara | |
| · Section 355 (extremely hazardous substances): | None of the ingredients is listed. |
| · Section 313 (Specific toxic chemical listings): | All ingredients are listed. |
| · TSCA (Toxic Substances Control Act): | All components have the value ACTIVE. |
| · Hazardous Air Pollutants | All ingredients are listed. |
| · Proposition 65 | |
| · Chemicals known to cause cancer: | None of the ingredients is listed. |
| · Chemicals known to cause reproductive toxicity for females: | None of the ingredients is listed. |
| · Chemicals known to cause reproductive toxicity for males: | None of the ingredients is listed. |
| · Chemicals known to cause developmental toxicity: | 107-21-1 ethanediol |
| · Carcinogenic categories | |
| · EPA (Environmental Protection Agency) | None of the ingredients is listed. |

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

All components have the value A4.

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS07

· **Signal word** Warning

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

phthalic anhydride

· **Hazard statements**

Causes skin and eye irritation.

· **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

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

Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

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

16 Other information

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

· **Date of preparation / last revision** 10/14/2021 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

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1 Identification

- **Product identifier**
- **Trade name:** Crystalbond 509
- **Article number:** 50400-01, 50400-05, 50400-55, 50400-50
- **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**



Skin Irrit. 2 H315 Causes skin irritation.

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



- **Signal word** Warning
- **Hazard-determining components of labelling:**
phthalic anhydride

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- **Hazard statements**
Causes skin irritation.
- **Precautionary statements**
Wash thoroughly after handling.
Wear protective gloves.
IF ON SKIN: Wash with plenty of water.
Specific treatment (see on this label).
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition and Information on Ingredients

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

- **Dangerous components:**

| | | |
|----------|--------------------|-----------|
| 85-44-9 | phthalic anhydride | >50-≤100% |
| 107-21-1 | ethanediol | >25-≤50% |

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

4 First Aid Measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

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

6 Accidental Release Measures

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

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- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

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

8 Exposure controls and personal protection

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

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

85-44-9 phthalic anhydride

WES Long-term value: 6.1 mg/m³, 1 ppm
Sen

107-21-1 ethanediol

WES Short-term value: 104** mg/m³, 40** ppm
Long-term value: 10* 52** mg/m³, 20** ppm
Sk; *particulate; **vapour

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



Protective gloves

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

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

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

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

- **General Information**

- **Appearance:**

- **Form:** Solid
- **Colour:** Amber coloured
- **Odour:** Odourless
- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

- **Melting point/freezing point:** 68.3 °C
- **Initial boiling point and boiling range:** >100 °C

- **Flash point:** >263 °C

- **Flammability (solid, gas):** Not determined.

- **Ignition temperature:** 410 °C

- **Decomposition temperature:** Not determined.

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

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

- **Explosion limits:**

- **Lower:** 1.7 Vol %
- **Upper:** 53 Vol %

- **Vapour pressure at 20 °C:** 0.1 hPa

- **Density at 20 °C:** 1.31 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **water:** Insoluble.

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

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- | | |
|----------------------------|--|
| · Viscosity: | |
| · Dynamic: | Not applicable. |
| · Kinematic: | Not applicable. |
| · Solvent content: | |
| · Solids content: | 78.0 % |
| · 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**

· LD/LC50 values relevant for classification:

85-44-9 phthalic anhydride

| | | |
|------|------|-------------------|
| Oral | LD50 | 4,200 mg/kg (rat) |
|------|------|-------------------|

107-21-1 ethanediol

| | | |
|--------|------|----------------------|
| Oral | LD50 | 5,840 mg/kg (rat) |
| Dermal | LD50 | 9,530 mg/kg (rabbit) |

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **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:

Harmful
Irritant

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.

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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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|---|--|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Stowage Category | A |
| · Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 |
| | Maximum net quantity per inner packaging: 30 g |
| | Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | 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

107-21-1 ethanediol

S5, S6, S10

· 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).

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- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

phthalic anhydride

- **Hazard statements**

Causes skin irritation.

- **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves.

IF ON SKIN: Wash with plenty of water.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

- **Directive 2012/18/EU**

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

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

16 Other information

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

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 10/14/2021

1 Identification

- **Product identifier**
- **Trade name:** Crystalbond 509
- **Article number:** 50400-01, 50400-05, 50400-55, 50400-50
- **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**



GHS07

Skin Irritation - Category 2 H315 Causes skin irritation.

Eye Irritation - Category 2B H320 Causes eye irritation.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
 phthalic anhydride
- **Hazard statements**
 Causes skin and eye irritation.
- **Precautionary statements**
 Wash thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 Specific treatment (see on this label).
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 If skin irritation occurs: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 If eye irritation persists: Get medical advice/attention.

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



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



3 Composition/Information on ingredients

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

- **Dangerous components:**

| | | |
|----------|--------------------|--------------|
| 85-44-9 | phthalic anhydride | 45-70% w/w * |
| 107-21-1 | ethanediol | 10-30% w/w * |

* Actual concentration ranges are withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

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

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- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

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

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:**

85-44-9 phthalic anhydride

| | |
|----|----------------------------------|
| EL | TWA: 1 ppm S(D), S(R), Skin |
| EV | TWA: 6 mg/m ³ , 1 ppm |

107-21-1 ethanediol

| | |
|----|--|
| EL | STEL: 20** mg/m ³ TWA: 10** mg/m ³ Ceiling: 100* mg/m ³ , 50*** ppm *Aerosol; **Particulate; ***Vapour |
| EV | Ceiling: 100 mg/m ³ |

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

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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:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

- **Form:** Solid
- **Color:** Amber colored
- **Odor:** Odorless
- **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

- **Melting point/Melting range:** 68.3 °C
- **Boiling point/Boiling range:** >100 °C

· **Flash point:** >263 °C

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

· **Ignition temperature:** 410 °C

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- **Lower:** 1.7 Vol %
- **Upper:** 53 Vol %

· **Vapor pressure at 20 °C:** 0.1 hPa

· **Density at 20 °C:** 1.31 g/cm³

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| | |
|---|--|
| · Relative density | Not determined. |
| · Vapor density | Not applicable. |
| · Evaporation rate | Not applicable. |
| · Solubility in / Miscibility with | |
| · Water: | Insoluble. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| · Dynamic: | Not applicable. |
| · Kinematic: | Not applicable. |
| · Solvent content: | |
| · Solids content: | 78.0 % |
| · 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:**

· **LD/LC50 values that are relevant for classification:**

85-44-9 phthalic anhydride

| | | |
|------|------|-------------------|
| Oral | LD50 | 4,200 mg/kg (rat) |
|------|------|-------------------|

107-21-1 ethanediol

| | | |
|------|------|-------------------|
| Oral | LD50 | 5,840 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--------|------|----------------------|
| Dermal | LD50 | 9,530 mg/kg (rabbit) |
|--------|------|----------------------|

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

· **Carcinogenic categories**

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

None of the ingredients is listed.

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

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

13 Disposal considerations

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

14 Transport information

- | | |
|--|--|
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Stowage Category | A |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT/TDG | |
| · Quantity limitations | On passenger aircraft/rail: 25 kg On cargo aircraft only: 100 kg |
| <hr style="border-top: 1px dashed black;"/> | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |

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· UN "Model Regulation": Void

15 Regulatory information

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

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

None of the ingredients is listed.

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

All ingredients are listed.

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

All components have the value ACTIVE.

- **Canadian substance listings:**

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

All ingredients are listed.

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

85-44-9 phthalic anhydride

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

107-21-1 ethanediol

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

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

phthalic anhydride

- **Hazard statements**

Causes skin and eye irritation.

- **Precautionary statements**

Wash thoroughly after handling.

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

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

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

Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

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

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16 Other information

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

· **Date of the latest revision of the safety data sheet 10/14/2021 / -**

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

CA

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

Printing date 14.10.2021

Revision: 14.10.2021

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

- **1.1 Product identifier**
- **Trade name:** Crystalbond 509
- **Article number:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **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**



GHS07

- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.

- **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**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
phthalic anhydride
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements**
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.

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P362+P364 Take off contaminated clothing and wash it before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention.

Additional information:

Contains phthalic anhydride. May produce an allergic reaction.

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: 85-44-9 EINECS: 201-607-5 | phthalic anhydride ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | ethanediol ⚠ Acute Tox. 4, H302 | >25-≤50% |

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

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

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

After eye contact:

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

After swallowing: Call for a doctor immediately.

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.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Not required.

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

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

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· 6.4 Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and storage

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

SECTION 8: Exposure controls/personal protection

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

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

85-44-9 phthalic anhydride

| | |
|-----|---|
| WEL | Short-term value: 12 mg/m ³ Long-term value: 4 mg/m ³ Sen |
|-----|---|

107-21-1 ethanediol

| | |
|-----|--|
| WEL | Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour |
|-----|--|

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

· 8.2 Exposure controls

- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

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

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

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- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

- **Form:** Solid
- **Colour:** Amber coloured
- **Odour:** Odourless
- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

- **Melting point/freezing point:** 68.3 °C
- **Initial boiling point and boiling range:** >100 °C

- **Flash point:** >263 °C

- **Flammability (solid, gas):** Not determined.

- **Ignition temperature:** 410 °C

- **Decomposition temperature:** Not determined.

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

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

- **Explosion limits:**

- **Lower:** 1.7 Vol %
- **Upper:** 53 Vol %

- **Vapour pressure at 20 °C:** 0.1 hPa

- **Density at 20 °C:** 1.31 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **water:** Insoluble.

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

- **Viscosity:**

- **Dynamic:** Not applicable.

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| | |
|--------------------------------|--|
| · Kinematic: | Not applicable. |
| · Solvent content: | |
| · Solids content: | 78.0 % |
| · 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.

· **LD/LC50 values relevant for classification:**

85-44-9 phthalic anhydride

| | | |
|------|------|-------------------|
| Oral | LD50 | 4,200 mg/kg (rat) |
|------|------|-------------------|

107-21-1 ethanediol

| | | |
|--------|------|----------------------|
| Oral | LD50 | 5,840 mg/kg (rat) |
| Dermal | LD50 | 9,530 mg/kg (rabbit) |

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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** Based on available data, the classification criteria are not met.
- **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 | A |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 |
| | Maximum net quantity per inner packaging: 30 g |
| | Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | 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.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

GB

(Contd. on page 7)

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

Printing date 14.10.2021

Revision: 14.10.2021

Trade name: **Crystalbond 509**

(Contd. of page 6)

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**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

GB

化学品安全技术说明书

据根据据据T 16483-2008, GB/T 17519-2013

打印日期 2021.10.14

在 2021.10.14 审核

1 化学品及企业标识

- **产品识别者**
- **化学品中文名称/英文名称/化学品俗名或商品名:** Crystalbond 509
- **商品编号:** 50400-01, 50400-05, 50400-55, 50400-50
- **相应纯物质或者混合物的相关下位用途及禁止用途** 无相关详细资料。
- **原材料的应用/准备工作进行** 实验室化学物
- **安全技术说明书内供应商详细信息**
- **企业名称:**
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
- **可获取更多资料的部门:** Product safety department
- **紧急联系电话号码:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危险性概述

- **紧急情况概述:**
琥珀色的，固体，吞咽可能有害。造成皮肤和眼刺激。

- **GHS危险性类别**



皮肤腐蚀/刺激 第2类 H315 造成皮肤刺激

急性毒性(经口) 第5类 H303 吞咽可能有害

严重眼损伤/眼刺激 类别2B H320 造成眼刺激

- **标签因素**

- **GHS卷标元素** 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

图示图示图示



GHS07

名称名称名称

- **标签上辨别危险的成份:**

酞酐 (>50-≤100 %)

1,2-乙二醇 (>25-≤50 %)

- **危险字句**

吞咽可能有害

造成皮肤和眼刺激

- **警戒字句**

- **预防措施**

戴防护手套

(在 2 页继续)

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(在 1 页继续)

· 事故响应

如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗
如感觉不适,呼叫急救中心/医生
具体治疗(见本标签上的)
脱掉沾染的衣服,清洗后方可重新使用
如发生皮肤刺激:求医/就诊

· 其他有害性

- PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果
- PBT(残留性、生物浓缩性、毒性物质) 不适用的
- vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

· 混合物

描述描述描述以下含有无害添加济的成分组成的混合物

· 危险的成分:

| | | |
|----------|--|-----------|
| 85-44-9 | 酞酐 ⚠ 敏化(呼吸) 第1类, H334; ⚠ 严重眼睛损伤/眼睛刺激性 第1类, H318; ⚠ 急性毒性(径口) 第4类, H302; 皮肤腐蚀/刺激 第2类, H315; 敏化(皮肤) 第1类, H317; 特定靶器官系统毒性 (单次接触) 第3类, H335 | >50-≤100% |
| 107-21-1 | 1,2-乙二醇 ⚠ 急性毒性(径口) 第4类, H302 | >25-≤50% |

4 急救措施

· 应急措施要领

- **总说明:** 中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察。
- 吸入吸入吸入一病人不清醒时,请让病人侧躺以便移动。
- **皮肤接触:** 马上用水和肥皂进行彻底的冲洗。
- **眼睛接触:** 张开眼睛在流水下冲洗数分钟. 如果症状仍然持续,请咨询医生。
- 食入食入食入马上召唤医生。
- **给医生的资料:**
- **最重要的急慢性症状及其影响** 无相关详细资料。
- **需要及时的医疗处理及特别处理的症状** 无相关详细资料。

5 消防措施

· 灭火方法

- **灭火的方法和灭火剂:** 使用适合四周环境的灭火措施。
- **特别危险性** 无相关详细资料。
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施。

6 泄漏应急处理

- **保护措施** 没有要求。
- **环境保护措施:** 切勿让其进入下水道/水面或地下水。
- **密封及净化方法和材料:** 根据第 13 条款弃置受污染物。

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· 手套材料

选择合适的手套不单取决于材料, 亦取决于质量特征, 以及来自哪一间生产厂家, 因为该产品是由很多材料配制而成, 手套材料的抵抗力并不可预计, 所以, 必须在使用之前进行检查

· **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

· 眼睛防护:



密封的护目镜

9 理化特性

· 有关基本物理及化学特性的信息

· 一般说明

| | |
|--------|------|
| 外观外观外观 | 固体 |
| 形状形状形状 | 琥珀色的 |
| 颜色颜色颜色 | 无气味的 |
| 气味气味气味 | 未决定. |
| · 嗅觉阈限 | |

· pH值: 不适用的

· 条件的更改

| | |
|--------|---------|
| 熔点熔点熔点 | 68.3 °C |
| 沸点沸点沸点 | >100 °C |
| 闪点闪点闪点 | >263 °C |

· 可燃性 (固体、气体): 未决定.

· 点火温度: 410 °C

· 分解温度: 未决定.

· 自燃温度: 该产品是不自燃的

· 爆炸的危险性: 该产品并没有爆炸的危险

· 爆炸极限:

| | |
|--------|-----------|
| 较低较低较低 | 1.7 Vol % |
| 较高较高较高 | 53 Vol % |

· 蒸气压 在 20 °C: 0.1 hPa

| | |
|----------|------------------------|
| 密度密度密度 | 1.31 g/cm ³ |
| · 相变密度密度 | 未决定. |
| · 蒸气密度 | 不适用的 |
| · 蒸发速率 | 不适用的 |

· 溶解性

· 水: 不能溶解的

· n-辛醇/水分配系数未决定.

· 黏性:

| | |
|---------|------|
| 动态动态动态 | 不适用的 |
| 运动运动运动的 | 不适用的 |

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化学品中文名称: 晶钢胶 Crystalbond 509

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· 溶剂成份:

- 固体成份: 78.0 %
- 其他信息: 无相关详细资料。

10 稳定性和反应性

- 稳定性: 无相关详细资料。
- 稳定性: 稳定
- 分解: 如果遵照规格使用则不会分解。
- 有害分解产物: 未有已知的危险反应。
- 避免避免的条件: 无相关详细资料。
- 不相容的物质: 无相关详细资料。
- 危险的分解产物: 未知有危险的分解产品。

11 毒理学信息

- 对毒性学影响的信息
 - 急性毒性:
- | | | |
|---------------------|------|----------------------|
| · 与分类相关的 LD/LC50 值: | | |
| 85-鞣酐酐酐酐酐 | | |
| 口腔 | LD50 | 4,200 mg/kg (rat) |
| 107-21-1 1,2-乙二醇 | | |
| 口腔 | LD50 | 5,840 mg/kg (rat) |
| 皮肤 | LD50 | 9,530 mg/kg (rabbit) |
- 重要的刺激影响: 皮肤刺激皮肤和粘膜。
 - 在眼睛上面: 刺激的影响。
 - 致敏: 有已知的敏化影响。
 - 更多毒物的资料: 根据有关配制的一般欧盟分类指南的计算方法 (刊印在最新版本), 该产品显示以下的危险: 有害的, 刺激性的

12 生态学信息

- 生态毒性
- 水生毒性: 无相关详细资料。
- 持久性和降解性: 无相关详细资料。
- 环境系统习性: 潜在的累积性: 无相关详细资料。
- 土壤土壤移动性: 无相关详细资料。
- 额外的生态学资料:
- 包括注解: 水危害级别 1(德国规例) (通过名单进行自我评估): 对水是稍微危害的, 不要让未稀释或大量的产品接触地下水、水道或者污水系统。
- PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质) 评价结果
- PBT(残留性、生物浓缩性、毒性物质) 不适用的
- vPvB(高残留性、高生物浓缩性物质): 不适用的

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化学品中文名称: **化学品俗名或商品名:** Crystalbond 509

其他其他其他用用用相关详细资料。

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13 废弃处置

废弃处置方法

建议建议建议能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统.

· 受污染的容器和包装:

建议建议建议须根据官方的规章来丢弃.

14 运输信息

| | |
|---|--|
| · 危害环境: | 不适用的 |
| · 用户特别预防措施 | 不适用的 |
| · Stowage Category | A |
| · MARPOL73/78(针对船舶引起的海洋污染预防协议) 附件书根据根据C国际国际船舶货物编码)值大量大量 | 不适用的 |
| 运输运输运输的资料: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · 标准标准标准规定 | 无效 |

15 法规信息

· 对相应纯物质或者混合物的安全、保健及环境法规/法律

· 危险化学品安全管理条例

· 危险化学品目录目录

85-44-9 酞酐

· 新化学物质环境管理办法

· 国家环境有害物质名录

列出所有成分

· GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

图示图示图示



GHS07

名称名称名称

· 标签上辨别危险的成份:

酞酐 (>50-≤100 %)

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1,2-乙二醇 (>25-≤50 %)

危险字句

· 吞咽可能有害
· 造成皮肤和眼刺激

警戒字句**预防措施**

· 戴防护手套

事故响应

· 如进入眼睛:用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出,取出隐形眼镜。继续冲洗

· 如感觉不适,呼叫急救中心/医生

· 具体治疗(见本标签上的)

· 脱掉沾染的衣服,清洗后方可重新使用

· 如发生皮肤刺激:求医/就诊

· **化学物质安全性评价:** 尚未进行化学物质安全性评价

16 其他信息

该资料是基于我们目前的知识。然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

缩写:

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

急性毒性(经口) 第4类: Acute toxicity – Category 4

急性毒性(经口) 第5类: Acute toxicity – Category 5

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation – Category 2

严重眼睛损伤/眼睛刺激性 第1类: Serious eye damage/eye irritation – Category 1

严重眼损伤/眼刺激 类别2B: Serious eye damage/eye irritation – Category 2B

敏化(呼吸) 第1类: Respiratory sensitisation – Category 1

敏化(皮肤) 第1类: Skin sensitisation – Category 1

特定靶器官系统毒性 (单次接触) 第3类: Specific target organ toxicity (single exposure) – Category 3

- CN -

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.10.2021

Herziening van: 14.10.2021

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

· 1.1 Productidentificatie

· **Handelsnaam:** Crystalbond 509

· **Artikelnummer:** 50400-01, 50400-05, 50400-55, 50400-50

· **UFI:** R5Q0-ROUG-2008-G3Y1

· **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 verstreker 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**



Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.

· 2.2 Etiketteringselementen

· **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**

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

· **Gevarenpictogrammen**



· **Signaalwoord** Waarschuwing

· **Gevaaraanduidende componenten voor de etikettering:**

ftaalzuuranhydride

(Vervolg op blz. 2)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 14.10.2021

Herziening van: 14.10.2021

Handelsnaam: Crystalbond 509

(Vervolg van blz. 1)

- **Gevarenaanduidingen**

H315 Veroorzaakt huidirritatie.

H319 Veroorzaakt ernstige oogirritatie.

- **Veiligheidsaanbevelingen**

P264 Na het werken met dit product grondig wassen.

P280 Beschermende handschoenen / oogbescherming / gelaatsbescherming dragen.

P305+P351+P338 **BIJ CONTACT MET DE OGEN:** voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.

P332+P313 Bij huidirritatie: een arts raadplegen.

P362+P364 Verontreinigde kleding uittrekken en wassen alvorens deze opnieuw te gebruiken.

P337+P313 Bij aanhoudende oogirritatie: een arts raadplegen.

- **Aanvullende gegevens:**

Bevat ftaalzuuranhydride. Kan een allergische reactie veroorzaken.

- **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: 85-44-9 | ftaalzuuranhydride | >50-≤100% |
| EINECS: 201-607-5 | ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | |
| CAS: 107-21-1 | 1,2-ethaandiol | >25-≤50% |
| EINECS: 203-473-3 | ⚠ Acute Tox. 4, H302 | |

- **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**

- **Algemene informatie:**

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

- **Na het inademen:** Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.

- **Na oogcontact:**

De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.

- **Na inslikken:** Onmiddellijk 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.

NL
(Vervolg op blz. 3)

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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** Niet nodig.
- **6.2 Milieuvorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- en reinigingsmethoden en -materiaal:** Besmet materiaal zoals afval volgens punt 13 verwijderen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

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

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

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

· 8.1 Controleparameters

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

107-21-1 1,2-ethaandiol

| | |
|-----|--|
| WGW | Korte termijn waarde: 104* mg/m ³ , 40* ppm Lange termijn waarde: 52* 10** mg/m ³ , 20* 4** ppm *damp **druppels |
|-----|--|

- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:** Niet noodzakelijk.

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· Handbescherming:

Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.

Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

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

· Handschoenmateriaal

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

· Doordringingstijd van het handschoenmateriaal

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

· Oogbescherming:

Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

· 9.1 Informatie over fysische en chemische basiseigenschappen**· Algemene gegevens****· Voorkomen:**

- **Vorm:** Vast
- **Kleur:** Barnsteenkleurig
- **Geur:** Reukloos
- **Geurdrempelwaarde:** Niet bepaald.

· **pH-waarde:** Niet bruikbaar.

· Toestandsverandering

- **Smelt-/vriespunt:** 68,3 °C
- **Beginkookpunt en kooktraject:** >100 °C

· **Vlampunt:** >263 °C

· **Ontvlambaarheid (vast, gas):** Niet bepaald.

· **Ontstekingstemperatuur:** 410 °C

· **Ontledingstemperatuur:** Niet bepaald.

· **Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.

· **Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk.

· Ontploffingsgrenzen:

- **Onderste:** 1,7 Vol %
- **Bovenste:** 53 Vol %

· **Dampspanning bij 20 °C:** 0,1 hPa

· **Dichtheid bij 20 °C:** 1,31 g/cm³

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| | |
|---|---|
| · Relatieve dichtheid | Niet bepaald. |
| · Dampdichtheid | Niet bruikbaar. |
| · Verdampingsnelheid | Niet bruikbaar. |
| · Oplosbaarheid in/mengbaarheid met Water: | Niet oplosbaar. |
| · Verdelingscoëfficiënt: n-octanol/water: | Niet bepaald. |
| · Viscositeit | |
| · Dynamisch: | Niet bruikbaar. |
| · Kinematisch: | Niet bruikbaar. |
| · Oplosmiddelgehalte: | |
| · Gehalte aan vaste bestanddelen: | 78,0 % |
| · 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.

Indelingsrelevantie LD/LC50-waarden:

85-44-9 ftaalzuuranhydride

| | | |
|-------|------|-------------------|
| Oraal | LD50 | 4.200 mg/kg (rat) |
|-------|------|-------------------|

107-21-1 1,2-ethaandiol

| | | |
|-------|------|-------------------|
| Oraal | LD50 | 5.840 mg/kg (rat) |
|-------|------|-------------------|

| | | |
|---------|------|----------------------|
| Dermaal | LD50 | 9.530 mg/kg (rabbit) |
|---------|------|----------------------|

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstige oogirritatie.
- **Sensibilisatie van de luchtwegen/de huid**
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **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** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **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.

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- **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): B(4) Weinig schadelijk voor in water levende organismen
Gevaar voor water klasse 1 (D) (Zelfclassificatie): gevaar voor water klein
Niet onverdund of in grote hoeveelheden lozen in grondwater, in oppervlaktewater of in de riolering.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

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

RUBRIEK 14: Informatie met betrekking tot het vervoer

- | | |
|---|--|
| · 14.5 Milieugevaren: | Niet bruikbaar. |
| · 14.6 Bijzondere voorzorgen voor de gebruiker | Niet bruikbaar. |
| · Stowage Category | A |
| · 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code | Niet bruikbaar. |
| · Transport/verdere gegevens: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · VN "Model Regulation": | 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**
geen der bestanddelen staat op de lijst.

(Vervolg op blz. 7)

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· **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)**

geen der bestanddelen staat op de lijst.

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

107-21-1 | 1,2-ethaandiol

· **Richtlijn 2012/18/EU**

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

· **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.

· **Nationale voorschriften:**

· **Gevaarklasse v. water:** Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen

· **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**

H302 Schadelijk bij inslikken.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H318 Veroorzaakt ernstig oogletsel.

H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.

H335 Kan irritatie van de luchtwegen veroorzaken.

· **Afkortingen en acroniemen:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxiciteit - oraal – Categorie 4

Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2

Eye Dam. 1: Ernstig oogletsel/oogirritatie – Categorie 1

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

Resp. Sens. 1: Sensibilisatie van de luchtwegen – Categorie 1

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

STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3

Ohutuskaart

vastavalt 1907/2006/EÜ, Artikkel 31

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Läbi vaadatud: 14.10.2021

1. JAGU: Aine/segude ning ariühingu/ettevõtja identifitseerimine

- **1.1 Tootetähis**
- **Kaubanduslik nimetus:** Crystalbond 509
- **Artikkel:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **1.2 Aine või segu asjaomased kindlaksmääratud kasutusala ning kasutusala, mida ei soovitata**
Täiendav oluline teave puudub.
- **Aine/preparaadi kasutamine** Laborikemikaalid
- **1.3 Andmed ohutuskaardi tarnija kohta**
- **Tootja/Tarnija:**
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
- **Lähemat informatsiooni saab:** Product safety department
- **1.4 Hädaabitelefoni number**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2. JAGU: Ohtude identifitseerimine

- **2.1 Aine või segu klassifitseerimine**
- **Klassifikatsioon vastavalt määrusele (EÜ) nr 1272/2008**



GHS07

Skin Irrit. 2 H315 Põhjustab nahaärritust.

Eye Irrit. 2 H319 Põhjustab tugevat silmade ärritust.

- **2.2 Märgistuselemendid**
- **Märgistus vastavalt määrusele (EÜ) nr 1272/2008**
Toode on klassifitseeritud ja märgistatud CLP (ainete ja segude klassifitseerimise, märgistamise ja pakendamise käsitleva) määruse nõuete kohaselt.
- **Ohupiktogramm**



GHS07

- **Tunnussõna** Hoiatus
- **Märgistuskomponendid ohu määramiseks:**
Ftaalanhüdriid
- **Ohulaused**
H315 Põhjustab nahaärritust.
H319 Põhjustab tugevat silmade ärritust.
- **Hoiatuslaused**
P264 Pärast käitlemist pesta hoolega.
P280 Kanda kaitsekindaid / kaitseprille / kaitsemaski.
P305+P351+P338 **SILMA SATTUMISE KORRAL:** loputada mitme minuti jooksul ettevaatlikult veega. Eemaldada kontaktläätsed, kui neid kasutatakse ja kui neid on kerge eemaldada. Loputada veel kord.

(Jätub lehelt 2)

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(Jätkub lehel 1)

- P332+P313 Nahaärrituse korral: pöörduda arsti poole.
 P362+P364 Võtta seljast saastunud rõivad ja pesta enne korduskasutust.
 P337+P313 Kui silmade ärritus ei möödu: pöörduda arsti poole.

Lisainformatsioon:

- Sisaldab Ftaalanhüdroiid. Võib esile kutsuda allergilise reaktsiooni.
- **2.3 Muud ohud**
- **Püüvate, bioakumuleeruvate ja toksiliste ning väga püüvate ja väga bioakumuleeruvate omaduste hindamine**
- **PBT:** Ei ole kohaldatav.
- **vPvB:** Ei ole kohaldatav.

3. JAGU: Koostis/teave koostisainete kohta

- **3.2 Keemiline iseloomustus: Segud**
- **Kirjeldus:** Segu allpool loetletud ohutute lisanditega substantsidest.

Ohtlikud koostisosad:

| | | |
|------------------------------------|--|-----------|
| CAS: 85-44-9 EINECS: 201-607-5 | Ftaalanhüdroiid Resp. Sens. 1, H334; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | Etaandiool Acute Tox. 4, H302 | >25-≤50% |

- **Lisainformatsioon:** Loetletud riskitunnuste sõnaline kuju vastab osale 16.

4. JAGU: Esmaabimeetmed

- **4.1 Esmaabimeetmete kirjeldus**
- **Üldine informatsioon:**
Mürgituse sümptoomid võivad esineda isegi mitme tunni möödumisel; sellepärast on vajalik meditsiiniline järelevalve vähemalt 48 tunni jooksul pärast õnnetust.
- **Pärast sissehingamist:** Teadvuse kaotamise korral paigutage patsient stabiilselt külili transportimiseks.
- **Pärast nahale sattumist:** Koheselt peske veega ja seebiga ning loputage täielikult.
- **Pärast silma sattumist:**
Loputage avatud silm mõne minuti jooksul jooksva vee all. Kui sümptomid säilivad, konsulteerige arstiga.
- **Pärast allaneelamist:** Koheselt kutsuge arst.
- **4.2 Olulisemad akuutsed ja hilisemad sümptomid ning mõju** Täiendav oluline teave puudub.
- **4.3 Märge igasuguse vältimatu meditsiiniabi ja erikohtlemise vajalikkuse kohta** Täiendav oluline teave puudub.

5. JAGU: Tulekustutusmeetmed

- **5.1 Tulekustutusvahendid**
- **Sobivad kustutusained:** Kasutage ümbritsevate tingimustega sobivaid tulekustutusmeetodeid.
- **5.2 Aine või seguga seotud erilised ohud** Täiendav oluline teave puudub.
- **5.3 Nõuanded tuletõrjajatele**
- **Kaitsevarustus:** Erilised meetmed pole nõutavad.

6. JAGU: Meetmed juhusliku sattumise korral keskkonda

- **6.1 Isikukaitsemeetmed, kaitsevahendid ja toimimine hädaolukorras** Pole nõutav.
- **6.2 Keskkonnakaitse meetmed:** Ei tohi sattuda kanalisatsiooni / pinnasele või krundivette.
- **6.3 Tõkestamis- ning puhastamise meetodid ja -vahendid:**
Käideldge saastunud materjal samuti nagu jäätmed vastavalt punktile 13.

(Jätkub lehel 3)

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- **6.4 Viited muudele jagudele**
Informatsiooni ohutu kasutamise kohta vaadake osas 7.
Informatsiooni isikliku kaitsevarustuse kohta vaadake osas 8.
Informatsiooni käitlemise kohta vaadake osas 13.

7. JAGU: Käitlemine ja ladustamine

- **7.1 Ohutu käitlemise tagamiseks vajalikud ettevaatusabinõud**
Korrektse kasutamise korral ei ole tarvis erilisi ettevaatusabinõusid pole tarvis.
- **Informatsioon tule- ja plahvatusvastase kaitse kohta:** Erilised meetmed pole nõutavad.
- **7.2 Ohutu ladustamise tingimused, sealhulgas sobimatud ladustamistingimused**
- **Hoiustamine:**
- **Nõudmised ladudele ja anumatele:** Ei ole erilisi nõudeid.
- **Informatsioon koos hoiustamise kohta:** Pole nõutud.
- **Lähem informatsioon hoiustamistingimuste kohta:** Anum säilitada tihedalt suletuna.
- **7.3 Erikasutus** Täiendav oluline teave puudub.

8. JAGU: Kokkupuute ohjamine/isikukaitse

- **Lisainformatsioon tehniliste seadmete kohta:** Rohkem andmeid pole; vaadake punkt 7.
- **8.1 Kontrolliparameetrid**

· **Töökohas järelevalvatavad koostisained piirväärtustega:**

85-44-9 Ftaalanhüdriid

| | |
|-----|--|
| TLV | Pikaajaline väärtus: 2 mg/m ³ |
| | S |

107-21-1 Etaandiool

| | |
|-----|---|
| TLV | Lühiajaline väärtus: 104 mg/m ³ , 40 ppm |
| | Pikaajaline väärtus: 52 mg/m ³ , 20 ppm |
| | A, 18 |

· **Lisainformatsioon:** Nimekirjad kehtivad valmistamise ajal, mil kasutatakse alusdokumendina.

- **8.2 Kokkupuute ohjamine**
- **Isiklik kaitsevarustus:**
- **Üldised kaitse- ja hügieenimeetmed:**
Hoida eemal toiduainetest, jookidest ja söökidest.
Koheselt eemaldage kõik määratud ja saastunud riideid
Enne pause ja töö lõpetamisel peske käed.
Vältida kokkupuudet silmade ja nahaga.
- **Hingamisteede kaitse:** Pole nõutav.
- **Käte kaitsmine:**



Kaitsekindad

Kinnaste materjal peab olema läbitungimatu ja vastupidav toote/ substantsi/ preparaadi suhtes. Puuduvate testide tõttu ei saa tootele/ preparaadile/ kemikaalide segule anda mingeid soovitusi kindamaterjali kohta.

Kinda materjali valik tuginedes läbitungivuse aegadele, difusiooni ja degradeerimisnäitajatele

(Jätkub lehelt 4)

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(Jätub lehel 3)

· Kinnaste materjal

Sobivate kinnaste valik ei sõltu mitte üksnes materjalist, vaid samuti ka kvaliteedimärgistusest ning erineb erinevate tootjate puhul. Kuna toode on mitmest substantsist koosnev preparaat, ei saa kinnaste materjali vastupidavust kalkuleerida ette ning seepärast tuleb neid enne kasutust kontrollida.

· Kinnaste materjali läbitungimisaeg

Täpse läbitungimisaega on määranud kaitsekinnaste tootja ning see tuleb järgida.

· Silmakaitse:


Tihedalt hermeetilised kaitseprillid

9. JAGU: Füüsikalised ja keemilised omadused

· 9.1 Teave üldiste füüsikaliste ja keemiliste omaduste kohta
· Üldine informatsioon
· Välimus:
· Kuju:

Tahke

· Värvus:

Merevaigu toonis

· Lõhn:

Lõhnatu

· Lõhnalävi:

Pole määratud.

· pH väärtus:

Ei ole kohaldatav.

· Oleku muutus
· Sulamis-/külmumispunkt: 68,3 °C

· Keemise algpunkt ja keemisvahemik: >100 °C

· Leekpunkt:

>263 °C

· Süttivus (tahke, gaasiline):

Pole määratud.

· Süttimistemperatuur:

410 °C

· Lagunemistemperatuur:

Pole määratud.

· Isesüttimistemperatuur:

Toode ei ole isesüttiv.

· Plahvatusohtlikkus:

Toode ei tekita plahvatusohtu.

· Plahvatuse piirväärtused:
· Alumine:

1,7 Vol %

· Ülemine:

53 Vol %

· Aururõhk juures 20 °C:

0,1 hPa

· Tihedus juures 20 °C:
1,31 g/cm³
· Suhteline tihedus

Pole määratud.

· Auru tihedus

Ei ole kohaldatav.

· Aurustumisküürus:

Ei ole kohaldatav.

· Lahustatavus / Segunemine
· Vesi:

Mittelahustuv.

· Jaotustegur: n-oktaanol/-vesi:

Pole määratud.

· Viskoossus:
· Dünaamiline:

Ei ole kohaldatav.

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(Jätub lehel 4)

- | | |
|------------------------------|--------------------------------|
| · Kinemaatiline: | Ei ole kohaldatav. |
| · Lahusti sisaldus: | |
| · Tahkeaine sisaldus: | 78,0 % |
| · 9.2 Muu teave | Täiendav oluline teave puudub. |

10. JAGU: Püsivus ja reaktsioonivõime

- **10.1 Reaktsioonivõime** Täiendav oluline teave puudub.
- **10.2 Keemiline stabiilsus**
- **Termiline lagunemine / välditavad tingimused:**
Lagunemist ei esine, kui kasutatakse vastavalt spetsifikatsioonidele.
- **10.3 Ohtlike reaktsioonide võimalikkus** Ei ole teada ohtlike reaktsioone.
- **10.4 Tingimused, mida tuleb vältida** Täiendav oluline teave puudub.
- **10.5 Kokkusobimatud materjalid:** Täiendav oluline teave puudub.
- **10.6 Ohtlikud lagusaadused:** Toote ohtlikku lagunemist ei ole teada.

11. JAGU: Teave toksilisuse kohta

- **11.1 Teave toksikoloogiliste mõjude kohta**
- **Akuutne toksilisus** Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.

· LD/LC50 väärtused klassifitseerimiseks:
85-44-9 Ftaalanhüdriid

| | | |
|-----------|------|-------------------|
| Suuliselt | LD50 | 4.200 mg/kg (rat) |
|-----------|------|-------------------|

107-21-1 Etaandiool

| | | |
|-----------|------|----------------------|
| Suuliselt | LD50 | 5.840 mg/kg (rat) |
| Nahal | LD50 | 9.530 mg/kg (rabbit) |

- **Peamine ärritav efekt:**
- **Nahka söövitav/ärritav**
Põhjustab nahaärritust.
- **Rasket silmade kahjustust/ärritust põhjustav**
Põhjustab tugevat silmade ärritust.
- **Hingamisteede või naha ülitundlikkust põhjustav**
Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Kantserogeensed, mutageensed ja reproduktiivtoksilised mõjud**
- **Mutageensus sugurakkudele** Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Kantserogeensus** Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Reproduktiivtoksilisus** Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Sihrtorgani suhtes toksilised – ühekordne kokkupuude**
Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Sihrtorgani suhtes toksilised – korduv kokkupuude**
Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.
- **Hingamiskahjustus** Kätesaadavate andmete põhjal ei ole klassifitseerimiskriteeriumid täidetud.

12. JAGU: Ökoloogiline teave

- **12.1 Toksilisus**
- **Veetoksilisus:** Täiendav oluline teave puudub.
- **12.2 Püsivus ja lagunduvus** Täiendav oluline teave puudub.

(Jätub lehelt 6)

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(Jätub lehel 5)

- **12.3 Bioakumulatsioon** Täiendav oluline teave puudub.
- **12.4 Liikuvus pinnases** Täiendav oluline teave puudub.
- **Täiendav keskkonnavaline informatsioon:**
- **Üldised märkused:**
Vee ohtlikkusklass 1 (Saksa eeskirjad) (Enesehinnang): kergelt ohtlik vee jaoks
Lahjendamata toode või selle suured kogused ei tohi sattuda krundivetesse, vooluveekogudesse või kanalisatsioonisüsteemi.
- **12.5 Püsivate, bioakumuleeruvate ja toksiliste ning väga püsivate ja väga bioakumuleeruvate omaduste hindamine**
- **PBT:** Ei ole kohaldatav.
- **vPvB:** Ei ole kohaldatav.
- **12.6 Muud kahjulikud mõjud** Täiendav oluline teave puudub.

13. JAGU: Jäätmekäitlus

- **13.1 Jäätmetöötlusmeetodid**
- **Soovitused** Ei tohi käidelda koos olmeprügiga. Toode ei tohi sattuda kanalisatsioonisüsteemidesse.
- **Puhastamata pakend:**
- **Soovitused:** Käitlemine peab toimuma vastavalt ametlikele eeskirjadele.

14. JAGU: Veonõuded

- | | |
|---|--|
| 14.5 Keskkonnaohud: | Ei ole kohaldatav. |
| 14.6 Eriettevaatusabinõud kasutajatele · Stowage Category | Ei ole kohaldatav. A |
| 14.7 Transportimine mahlastina kooskõlas MARPOLi II lisaga ja IBC koodeksiga | Ei ole kohaldatav. |
| Transport/Lisainformatsioon: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | Kehtiv |

15. JAGU: Reguleerivad õigusaktid

- **15.1 Ainete ja segude suhtes kohaldatavad ohutuse-, tervise- ja keskkonnavalased eeskirjad/õigusaktid**
 - **Directiva 2012/18/UE**
 - **Nimetatud ohtlikud ained - I LISA** Ükski koostisaine ei ole nimekirjas.
- | |
|---|
| · Direktiiv 2011/65/EL teatavate ohtlike ainete kasutamise piiramise kohta elektri- ja elektroonikaseadmetes - II Lisa Ükski koostisaine ei ole nimekirjas. |
|---|
- **15.2 Kemikaaliohutuse hindamine:** Kemikaaliohutuse hindamist ei ole läbi viidud.

EE

(Jätub lehel 7)

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16. JAGU: Muu teave

Käesolev informatsioon põhineb meie praegustele teadmistele. Siiski ei garanteeri see mõningaid spetsiifilisi tootemadusi ning ei kehtesta õiguslikult kehtivaid lepingulisi suhteid.

· **Vastavad tunnused**

H302 Allaneelamisel kahjulik.

H315 Põhjustab nahaärritust.

H317 Võib põhjustada allergilist nahareaktsiooni.

H318 Põhjustab raskeid silmakahjustusi.

H334 Sissehingamisel võib põhjustada allergia- või astma sümptomeid või hingamisraskusi.

H335 Võib põhjustada hingamisteede ärritust.

· **Lühendid ja akronüümid:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Äge mürgisus - Suukaudne kokkupuude – 4. kategooria

Skin Irrit. 2: Nahasöövitus/-ärritus – 2. kategooria

Eye Dam. 1: Raske silmakahjustus/silmade ärritus – 1. kategooria

Eye Irrit. 2: Raske silmakahjustus/silmade ärritus – 2. kategooria

Resp. Sens. 1: Hingamiselundite sensibiliseerimine – 1. kategooria

Skin Sens. 1: Naha sensibiliseerimine – 1. kategooria

STOT SE 3: Mürgisus sihtelundi suhtes (ühekordne kokkupuude) – 3. kategooria

Käyttöturvallisuustiedote

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KOHTA 1: Aineen tai seoksen ja yhtiön tai yrityksen tunnistetiedot

- **1.1 Tuotetunniste**
- **Kauppanimike:** Crystalbond 509
- **Artikkelinumero:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **1.2 Aineen tai seoksen merkitykselliset tunnistetut käytöt ja käytöt, joita ei suositella**
Merkittäviä lisätietoja ei ole saatavilla.
- **Aineen / valmisteen käyttö** Laboratoriokemikaalit
- **1.3 Käyttöturvallisuustiedotteen toimittajan tiedot**
- **Valmistaja/toimittaja:**
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
- **Tietoja antaa:** Product safety department
- **1.4 Häät puhelinnumero:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

KOHTA 2: Vaaran yksilöinti

- **2.1 Aineen tai seoksen luokitus**
- **Luokitus asetuksen (EY) N:o 1272/2008 mukaisesti**



GHS07

- Skin Irrit. 2 H315 Ärsyttää ihoa.
- Eye Irrit. 2 H319 Ärsyttää voimakkaasti silmiä.

- **2.2 Merkinnät**
- **Merkinnät asetuksen (EY) N:o 1272/2008 mukaisesti** Tuote on luokiteltu ja merkitty CLP-asetuksen mukaan.
- **Varoitusmerkit**



GHS07

- **Huomiosana** Varoitus
- **Vaaran määräävät komponentit etiketeissä:**
ftaalihappoanhydridi
- **Vaaralausekkeet**
H315 Ärsyttää ihoa.
H319 Ärsyttää voimakkaasti silmiä.
- **Turvalausekkeet**
P264 Pese huolellisesti käsittelyn jälkeen.
P280 Käytä suojakäsineitä / silmiensuojainta / kasvonsuojainta.
P305+P351+P338 JOS KEMIKAALIA JOUTUU SILMIIN: Huuhto huolellisesti vedellä usean minuutin ajan.
Poista mahdolliset piilolinssit, jos sen voi tehdä helposti. Jatka huuhtomista.
P332+P313 Jos ilmenee ihoärsytystä: Hakeudu lääkäriin.
P362+P364 Riisu saastunut vaatetus ja pese ennen uudelleenkäyttöä.

(jatkuu sivulla 2)

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(jatkuu sivulla 1)

P337+P313 Jos silmä-ärsytys jatkuu: Hakeudu lääkäriin.

Lisätietoja:

Sisältää ftaalihappoanhydridi. Voi aiheuttaa allergisen reaktion.

2.3 Muut vaarat· **PBT- ja vPvB-arvioinnin tulokset**· **PBT:** Ei voida käyttää.· **vPvB:** Ei voida käyttää.

KOHTA 3: Koostumus ja tiedot aineosista

3.2 Kemialliset ominaisuudet: Seokset· **Selostus:** Seuraavista aineista koostuva seos, jossa vaarattomia lisäaineita.**Sisältää vaarallisia aineita:**

| | | |
|------------------------------------|---|-----------|
| CAS: 85-44-9 EINECS: 201-607-5 | ftaalihappoanhydridi ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | 1,2-Etaanidioli ⚠ Acute Tox. 4, H302 | >25-≤50% |

· **Lisätietoja:** Annettujen turvaohjeiden sanamuoto kappaleesta 16.

KOHTA 4: Ensiaputoimenpiteet

4.1 Ensiaputoimenpiteiden kuvaus**Yleisohjeet:**

Myrkytysoireet voivat ilmaantua vasta useiden tuntien kuluttua. Tästä syystä henkilöt on pidettävä lääkärin tarkkailun alaisena ainakin 48 tuntia onnettomuuden jälkeen.

· **Hengitettynä:** Tajuton pidettävä ja kuljetettava kyljellään.· **Ihokosketuksessa:** Pestävä heti vedellä ja saippualla ja huuhdottava hyvin.**Aineen päästyä silmiin:**

Silmiä huuhdotaan luomet auki juoksevan veden alla useita minutteja. Oireiden kestäessä käännytään lääkärin puoleen.

· **Nieltyä:** Saatettava lääkärin hoitoon.· **4.2 Tärkeimmät oireet ja vaikutukset, sekä välittömät että viivästyneet** Merkittäviä lisätietoja ei ole saatavilla.· **4.3 Mahdollisesti tarvittavaa välitöntä lääketieteellistä apua ja erityishoitoa koskevat ohjeet**

Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 5: Palontorjuntatoimenpiteet

5.1 Sammutusaineet· **Sopivat sammutusaineet:** Palontorjuntatoimenpiteet ympäristöä vastaavasti.· **5.2 Aineesta tai seoksesta johtuvat erityiset vaarat** Merkittäviä lisätietoja ei ole saatavilla.**5.3 Palontorjuntaa koskevat ohjeet**· **Erityinen suojavarustus:** Erikoistoimenpiteitä ei tarvita.

KOHTA 6: Toimenpiteet onnettomuuspäästöissä

· **6.1 Varotoimenpiteet, henkilönsuojaimet ja menettely hätätilanteessa** Ei tarvita.· **6.2 Ympäristöön kohdistuvat varotoimet:** Estettävä pääsy viemäreihin/pintavesiin/pohjaveteen.· **6.3 Suojarakenteita ja puhdistusta koskevat menetelmät ja -välineet:**

Saastunut aine on jätteenä hävitettävä kohdan 13 mukaisesti.

(jatkuu sivulla 3)

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- **6.4 Viittaukset muihin kohtiin**
Turvallista käsittelyä koskevia ohjeita kappaleessa 7.
Henkilökohtaista suojavarustusta koskevia ohjeita kappaleessa 8.
Aineen hävitystä koskevia ohjeita kappaleessa 13.

KOHTA 7: Käsittely ja varastointi

- **7.1 Turvallisen käsittelyn edellyttämät toimenpiteet** Erikoistoimenpiteitä ei tarvita asiallisessa käytössä.
- **Palo- ja räjähdysuojaohjeet:** Erikoistoimenpiteitä ei tarvita.
- **7.2 Turvallisen varastoinnin edellyttämät olosuhteet, mukaan luettuina yhteensopimattomuudet**
- **Varastointi:**
- **Varastotiloille ja säiliöille asetettavat vaatimukset:** Ei erikoisvaatimuksia.
- **Yhteisvarastointiohjeet:** Ei tarvita.
- **Lisätietoja varastointiehtoihin:** Astiat on pidettävä tiiviisti suljettuina.
- **7.3 Erityinen loppukäyttö** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 8: Altistumisen ehkäiseminen ja henkilönsuojaimet

- **Lisäohjeita teknisten laitteiden varustukseen:** Ei muita tietoja, ks. kohta 7.
- **8.1 Valvontaa koskevat muuttujat**

· **Aineosat työpaikkakohtaisin valvottavin raja-arvoin:**

85-44-9 ftaalihappoanhydridi

HTP Pitkäaikaisarvo: 0,2 mg/m³

107-21-1 1,2-Etaanidioli

HTP Lyhytaikaisarvo: 100 mg/m³, 40 ppm
Pitkäaikaisarvo: 50 mg/m³, 20 ppm
iho

- **Lisäohjeet:** Tiedot perustuvat valmistushetkellä voimassaoleviin luetteloihin.
- **8.2 Altistumisen ehkäiseminen**
- **Henkilökohtainen suojavarustus:**
- **Yleiset suoja- ja hygieniatoimenpiteet:**
Pidettävä loitolla elintarvikkeista, juomista ja rehuista.
Likaantuneet, aineen saastuttamat vaatekappaleet on riisuttava välittömästi.
Kädet on pestävä ennen taukoja ja työn päätyttyä.
Vältettävä ihokosketusta ja kosketusta silmiin.
- **Hengityssuoja:** Ei tarpeen.
- **Käsisuojus:**



Suojakäsineet

Käsinemateriaalin tulee olla tuotetta/ainetta/valmistetta kestävä ja läpäisemätöntä.

Puuttuvien testien vuoksi suositusta soveltuvasta suojakäsinemateriaalista tuotteelle/ valmisteelle / kemikaalikohteelle ei voida antaa.

Suojakäsinemateriaalin valinnassa on otettava huomioon läpäisyajat, läpäisevyyskerroin ja kuluminen.

- **Käsinemateriaali**

Soveltuvan käsinetyypin valikoima ei riipu yksinomaan materiaalista vaan myös muista laatuominaisuuksista ja vaihtelee eri valmistajilla. Koska tuote on valmiste, joka koostuu eri aineista, ei suojakäsinemateriaalin kestävyys ole ennalta arvioitavissa vaan pitää tarkistaa ennen käyttöä.

(jatkuu sivulla 4)

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- **Käsinmateriaalin läpäisy aika**
Tarkka läpäisy aika on selvítettävä suojakäsinevalmistajalta ja sitä on noudatettava.
- **Silmäsuojus:**



Tiiviit suojalasit

KOHTA 9: Fysikaaliset ja kemialliset ominaisuudet

· 9.1 Fysikaalisia ja kemiallisia perusominaisuuksia koskevat tiedot

· Yleiset ohjeet

· Olomuoto:

· **Muoto:** Kiinteä

· **Väri:** Meripihkanvärinen

· **Haju:** Hajuton

· **Hajukynnys:** Ei määrätty.

· **pH-arvo:** Ei voida käyttää.

· Tilanmuutos

· **Sulamis- tai jäätymispiste:** 68,3 °C

· **Kiehumispiste ja kiehumisalue:** >100 °C

· **Leimahduspiste:** >263 °C

· **Syttyvyys (kiinteät aineet, kaasut):** Ei määrätty.

· **Syttymislämpötila:** 410 °C

· **Hajoamislämpötila:** Ei määrätty.

· **Itsesyttymislämpötila:** Tuote ei ole itsestään syttyvä.

· **Räjähätvyys:** Tuote ei ole räjähdysvaarallinen.

· Räjähdyksrajat:

· **Alempi:** 1,7 Vol %

· **Ylempi:** 53 Vol %

· **Höyrypaine 20 °C lämpötilassa:** 0,1 hPa

· **Tiheys 20 °C lämpötilassa:** 1,31 g/cm³

· **Suhteellinen tiheys:** Ei määrätty.

· **Höyryntiheys:** Ei voida käyttää.

· **Haihtumisnopeus:** Ei voida käyttää.

· Liukenevuus/sekoittuvuus

· **veteen:** Liukenematon.

· **Jakautumiskerroin: n-oktanoli/vesi:** Ei määrätty.

· Viskositeetti:

· **Dynaaminen:** Ei voida käyttää.

· **Kinemaattinen:** Ei voida käyttää.

· Liuotepitoisuus:

· **Kiinteainepitoisuus:** 78,0 %

(jatkuu sivulla 5)

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(jatkuu sivulla 4)

· 9.2 Muut tiedot

Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 10: Stabiilisuus ja reaktiivisuus

- 10.1 Reaktiivisuus Merkittäviä lisätietoja ei ole saatavilla.
- 10.2 Kemiallinen stabiilisuus
- Terminen hajoavuus / vältettävät olosuhteet: Ei hajaantumista määräystenmukaisessa käytössä.
- 10.3 Vaarallisten reaktioiden mahdollisuus Ei tiedossa vaarallisia reaktioita.
- 10.4 Vältettävät olosuhteet Merkittäviä lisätietoja ei ole saatavilla.
- 10.5 Yhteensopimattomat materiaalit: Merkittäviä lisätietoja ei ole saatavilla.
- 10.6 Vaaralliset hajoamistuotteet: Tiedossa ei ole vaarallisia hajoamistuotteita.

KOHTA 11: Myrkyllisyyteen liittyvät tiedot

- 11.1 Tiedot myrkyllisistä vaikutuksista
- Välitön myrkyllisyys Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

· Luokittelurelevantti LD/LC50-arvot:

85-44-9 ftaalihappoanhydridi

| | | |
|--------|------|-------------------|
| Oraali | LD50 | 4.200 mg/kg (rat) |
|--------|------|-------------------|

107-21-1 1,2-Etaanidioli

| | | |
|----------|------|----------------------|
| Oraali | LD50 | 5.840 mg/kg (rat) |
| Dermaali | LD50 | 9.530 mg/kg (rabbit) |

- Ensisijainen ärsyttävä vaikutus:
- Ihosyövyttävyyksihoärsytys
Ärsyttää ihoa.
- Vakava silmävaurio/silmä-ärsytys
Ärsyttää voimakkaasti silmiä.
- Hengitysteiden tai ihon herkistyminen Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- CMR-vaikutukset eli syöpää aiheuttavat, perimää vaurioittavat ja lisääntymiselle vaaralliset vaikutukset
- Sukusolujen perimää vaurioittavat vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Syöpää aiheuttavat vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Lisääntymiselle vaaralliset vaikutukset Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Elinkohtainen myrkyllisyys – kerta-altistuminen
Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Elinkohtainen myrkyllisyys – toistuva altistuminen
Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.
- Aspiraatiovaara Saatavilla olevien tietojen perusteella luokituskriteerit eivät täyty.

KOHTA 12: Tiedot vaarallisuudesta ympäristölle

- 12.1 Myrkyllisyys
- Vesimyrkyllisyys: Merkittäviä lisätietoja ei ole saatavilla.
- 12.2 Pysyvyys ja hajoavuus Merkittäviä lisätietoja ei ole saatavilla.
- 12.3 Biokertyvyys Merkittäviä lisätietoja ei ole saatavilla.
- 12.4 Liikkuvuus maaperässä Merkittäviä lisätietoja ei ole saatavilla.
- Ekologisia lisätietoja:
- Yleisohjeita:
Vesistövaarallisuusluokka 1 (Oma luokitus): lievästi vesistöä vaarantava
Estetään aineen pääsy ohentamattomana tai suurina määrinä pohjaveteen, vesistöihin, viemäristöön.

(jatkuu sivulla 6)

Käyttöturvallisuustiedote

1907/2006/EY, 31 artikla mukainen

Painatuspäivämäärä 14.10.2021

Tarkistus: 14.10.2021

Kauppanimike: Crystalbond 509

(jatkuu sivulla 5)

- **12.5 PBT- ja vPvB-arvioinnin tulokset**
- **PBT:** Ei voida käyttää.
- **vPvB:** Ei voida käyttää.
- **12.6 Muut haitalliset vaikutukset** Merkittäviä lisätietoja ei ole saatavilla.

KOHTA 13: Jätteiden käsittelyyn liittyvät näkökohdat

- **13.1 Jätteiden käsittelymenetelmät**
- **Suositus:** Ei voida hävittää yhdessä talousjätteiden kanssa. Ei saa päästää viemäristöön.
- **Puhdistamattomat pakkaukset:**
- **Suositus:** Hävitettävä virallisten määräysten mukaisesti.

KOHTA 14: Kuljetustiedot

- | | |
|---|--|
| · 14.5 Ympäristövaarat: | Ei voida käyttää. |
| · 14.6 Erityiset varotoimet käyttäjälle | Ei voida käyttää. |
| · Stowage Category | A |
| · 14.7 Kuljetus irtolastina Marpol-sopimuksen II liitteen ja IBC-säännösten mukaisesti | Ei voida käyttää. |
| · Kuljetus/lisätietoja: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 |
| | Maximum net quantity per inner packaging: 30 g |
| | Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | tarpeeton |

KOHTA 15: Lainsäädäntöä koskevat tiedot

- **15.1 Nimenomaisesti ainetta tai seosta koskevat turvallisuus-, terveys- ja ympäristösäännökset tai -lainsäädäntö**
- **Direktiivi 2012/18/EU**
- **Nimetyt vaaralliset aineet - LIITE I** sisältäviä aineita ei ole lueteltu
- **Direktiivi 2011/65/EU tiettyjen vaarallisten aineiden käytön rajoittamisesta sähkö- ja elektroniikkalaitteissa - Liite II**
- sisältäviä aineita ei ole lueteltu
- **15.2 Kemikaaliturvallisuusarviointi:** Kemikaaliturvallisuusarviointia ei ole tehty.

KOHTA 16: Muut tiedot

Annetut tiedot perustuvat tämänhetkisiin tietoihimme. Ne eivät kuitenkaan anna takuuta tuotteen ominaisuuksista eivätkä aikaansaa sopimuksellista oikeussuhdetta.

- **Asiaankuuluvat lausekkeet**
- H302 Haitallista nieltynä.
- H315 Ärsyttää ihoa.
- H317 Voi aiheuttaa allergisen ihoreaktion.

(jatkuu sivulla 7)

Käyttöturvallisuustiedote
1907/2006/EY, 31 artikla mukainen

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(jatkuu sivulla 6)

*H318 Vaurioittaa vakavasti silmiä.**H334 Voi aiheuttaa hengitettynä allergia- tai astmaoireita tai hengitysvaikeuksia.**H335 Saattaa aiheuttaa hengitysteiden ärsytystä.***· Lyhenteet ja lyhytnimet:***IMDG: International Maritime Code for Dangerous Goods**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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 4: Välitön myrkyllisyys - suun kautta – Katgoria 4**Skin Irrit. 2: Ihosyövyttävyyys/ihoärsytys – Katgoria 2**Eye Dam. 1: Vakava silmävaurio/silmä-ärsytys – Katgoria 1**Eye Irrit. 2: Vakava silmävaurio/silmä-ärsytys – Katgoria 2**Resp. Sens. 1: Hengitysteitä herkistävä – Katgoria 1**Skin Sens. 1: Ihoa herkistävä – Katgoria 1**STOT SE 3: Elinkohtainen myrkyllisyys (kerta-altistuminen) – Katgoria 3*

FI

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

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

- **1.1 Identificateur de produit**
- **Nom du produit:** Crystalbond 509
- **Code du produit:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **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**



GHS07

- Skin Irrit. 2 H315 Provoque une irritation cutanée.
- Eye Irrit. 2 H319 Provoque une sévère irritation des yeux.

- **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**



GHS07

- **Mention d'avertissement** Attention
- **Composants dangereux déterminants pour l'étiquetage:**
anhydride phtalique
- **Mentions de danger**
H315 Provoque une irritation cutanée.
H319 Provoque une sévère irritation des yeux.
- **Conseils de prudence**
P264 Se laver soigneusement après manipulation.
P280 Porter des gants de protection / un équipement de protection des yeux / un équipement de protection du visage.
P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.

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- P332+P313 En cas d'irritation cutanée: consulter un médecin.
 P362+P364 Enlever les vêtements contaminés et les laver avant réutilisation.
 P337+P313 Si l'irritation oculaire persiste: consulter un médecin.

· **Indications complémentaires:**

Contient anhydride phtalique. Peut produire une réaction allergique.

- **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: 85-44-9 EINECS: 201-607-5 | anhydride phtalique ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | éthylène-glycol ⚠ Acute Tox. 4, H302 | >25-≤50% |

- **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**
- **Remarques générales:**
Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
- **Après inhalation:** En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.
- **Après contact avec les yeux:**
Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
- **Après ingestion:** Consulter immédiatement un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**
Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

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

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.

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- **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:**
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.
- **6.4 Référence à d'autres rubriques**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

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

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

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

· 8.1 Paramètres de contrôle

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

85-44-9 anhydride phtalique

| | |
|------|--|
| VLEP | Valeur momentanée: 6 mg/m ³ |
| | All |

107-21-1 éthylène-glycol

| | |
|------|--|
| VLEP | Valeur momentanée: 104 mg/m ³ , 40 ppm |
| | Valeur à long terme: 52 mg/m ³ , 20 ppm |
| | risque de pénétration percutanée |

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



Gants de protection

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

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

· **Forme:**

Solide

· **Couleur:**

Ambré

· **Odeur:**

Inodore

· **Seuil olfactif:**

Non déterminé.

· **valeur du pH:**

Non applicable.

· **Changement d'état**

· **Point de fusion/point de congélation:**

68,3 °C

· **Point initial d'ébullition et intervalle d'ébullition:**

>100 °C

· **Point d'éclair**

>263 °C

· **Inflammabilité (solide, gaz):**

Non déterminé.

· **Température d'inflammation:**

410 °C

· **Température de décomposition:**

Non déterminé.

· **Température d'auto-inflammabilité:**

Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:**

Le produit n'est pas explosif.

· **Limites d'explosion:**

· **Inférieure:**

1,7 Vol %

· **Supérieure:**

53 Vol %

· **Pression de vapeur à 20 °C:**

0,1 hPa

· **Densité à 20 °C:**

1,31 g/cm³

· **Densité relative**

Non déterminé.

· **Densité de vapeur:**

Non applicable.

· **Taux d'évaporation:**

Non applicable.

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| | |
|---|--|
| · Solubilité dans/miscibilité avec l'eau: | Insoluble |
| · Coefficient de partage: n-octanol/eau: | Non déterminé. |
| · Viscosité: | |
| · Dynamique: | Non applicable. |
| · Cinématique: | Non applicable. |
| · Teneur en solvants: | |
| · Teneur en substances solides: | 78,0 % |
| · 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.

· Valeurs LD/LC50 déterminantes pour la classification:

85-44-9 anhydride phtalique

| | | |
|------|------|-------------------|
| Oral | LD50 | 4.200 mg/kg (rat) |
|------|------|-------------------|

107-21-1 éthylène-glycol

| | | |
|------|------|-------------------|
| Oral | LD50 | 5.840 mg/kg (rat) |
|------|------|-------------------|

| | | |
|----------|------|---------------------|
| Dermique | LD50 | 9.530 mg/kg (lapin) |
|----------|------|---------------------|

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**
Provoque une sévère irritation des yeux.
- **Sensibilisation respiratoire ou cutanée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **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.

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· **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 | A |
| · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC | Non applicable. |
| · Indications complémentaires de transport: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · "Règlement type" de l'ONU: | néant |

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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.
- **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.
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

RUBRIQUE 16: Autres informations

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

- **Phrases importantes**
- H302 Nocif en cas d'ingestion.
- H315 Provoque une irritation cutanée.
- H317 Peut provoquer une allergie cutanée.
- H318 Provoque de graves lésions des yeux.
- H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
- H335 Peut irriter les voies respiratoires.
- **Acronymes et abréviations:**
- IMDG: International Maritime Code for Dangerous Goods
- 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Toxicité aiguë - voie orale – Catégorie 4
- Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2
- Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1
- Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2
- Resp. Sens. 1: Sensibilisation respiratoire – Catégorie 1
- Skin Sens. 1: Sensibilisation cutanée – Catégorie 1
- STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3

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

· **1.1 Produktidentifikator**

· **Handelsname:** Crystalbond 509

· **Artikelnummer:** 50400-01, 50400-05, 50400-55, 50400-50

· **UFI:** R5Q0-R0UG-2008-G3Y1

· **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

· **Auskunfteibender 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**



GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.

Eye Irrit. 2 H319 Verursacht schwere Augenreizung.

· **2.2 Kennzeichnungselemente**

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

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· **Gefahrenpiktogramme**



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- **Signalwort** Achtung
- **Gefahrbestimmende Komponenten zur Etikettierung:**
Phthalsäureanhydrid
- **Gefahrenhinweise**
H315 Verursacht Hautreizungen.
H319 Verursacht schwere Augenreizung.
- **Sicherheitshinweise**
P264 Nach Gebrauch gründlich waschen.
P280 Schutzhandschuhe / Augenschutz / Gesichtsschutz tragen.
P305+P351+P338 **BEI KONTAKT MIT DEN AUGEN:** Einige Minuten lang behutsam mit Wasser spülen.
Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
P332+P313 Bei Hautreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
P362+P364 Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
P337+P313 Bei anhaltender Augenreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
- **Zusätzliche Angaben:**
Enthält Phthalsäureanhydrid. Kann allergische Reaktionen hervorrufen.
- **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: 85-44-9 | Phthalsäureanhydrid | >50-≤100% |
| EINECS: 201-607-5 | ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | |
| CAS: 107-21-1 | Ethandiol | >25-≤50% |
| EINECS: 203-473-3 | ⚠ Acute Tox. 4, H302 | |

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

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
- **Nach Einatmen:** Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:**
Augen mehrere Minuten bei geöffnetem Lidspalt unter fließendem Wasser spülen. Bei anhaltenden Beschwerden Arzt konsultieren.
- **Nach Verschlucken:** Sofort Arzt aufsuchen.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.

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- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
Bei sachgemäßer Verwendung keine besonderen Maßnahmen erforderlich.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

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

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

85-44-9 Phthalsäureanhydrid

MAK vgl.Abschn.IIb

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107-21-1 Ethandiol

AGW Langzeitwert: 26 mg/m³, 10 ml/m³
2(1);DFG, EU, H, Y, 11

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

· **8.2 Begrenzung und Überwachung der Exposition**

· **Persönliche Schutzausrüstung:**

· **Allgemeine Schutz- und Hygienemaßnahmen:**

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Berührung mit den Augen und der Haut vermeiden.

· **Atemschutz:** Nicht erforderlich.

· **Handschutz:**



Schutzhandschuhe

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

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

· **Handschuhmaterial**

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

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**



Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

· **Allgemeine Angaben**

· **Aussehen:**

· **Form:**

Fest

· **Farbe:**

Bernsteinfarben

· **Geruch:**

Geruchlos

· **Geruchsschwelle:**

Nicht bestimmt.

· **pH-Wert:**

Nicht anwendbar.

· **Zustandsänderung**

· **Schmelzpunkt/Gefrierpunkt:**

68,3 °C

· **Siedebeginn und Siedebereich:**

>100 °C

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| | |
|--|--|
| · Flammpunkt: | >263 °C |
| · Entzündbarkeit (fest, gasförmig): | Nicht bestimmt. |
| · Zündtemperatur: | 410 °C |
| · Zersetzungstemperatur: | Nicht bestimmt. |
| · Selbstentzündungstemperatur: | Das Produkt ist nicht selbstentzündlich. |
| · Explosive Eigenschaften: | Das Produkt ist nicht explosionsgefährlich. |
| · Explosionsgrenzen: | |
| · Untere: | 1,7 Vol % |
| · Obere: | 53 Vol % |
| · Dampfdruck bei 20 °C: | 0,1 hPa |
| · Dichte bei 20 °C: | 1,31 g/cm ³ |
| · Relative Dichte | Nicht bestimmt. |
| · Dampfdichte | Nicht anwendbar. |
| · Verdampfungsgeschwindigkeit | Nicht anwendbar. |
| · Löslichkeit in / Mischbarkeit mit | |
| · Wasser: | Unlöslich. |
| · Verteilungskoeffizient: n-Octanol/Wasser: | Nicht bestimmt. |
| · Viskosität: | |
| · Dynamisch: | Nicht anwendbar. |
| · Kinematisch: | Nicht anwendbar. |
| · Lösemittelgehalt: | |
| · Festkörpergehalt: | 78,0 % |
| · 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.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

| | | |
|--|------|-------------------|
| · Einstufungsrelevante LD/LC50-Werte: | | |
| 85-44-9 Phthalsäureanhydrid | | |
| Oral | LD50 | 4.200 mg/kg (rat) |

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107-21-1 Ethandiol

| | | |
|--------|------|----------------------|
| Oral | LD50 | 5.840 mg/kg (rat) |
| Dermal | LD50 | 9.530 mg/kg (rabbit) |

- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **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** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **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: Umwelbezogene 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. |
| · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender | Nicht anwendbar. |

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- | | |
|--|--|
| · Stowage Category | A |
| · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code Nicht anwendbar. | |
| · Transport/weitere Angaben: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 |
| | Maximum net quantity per inner packaging: 30 g |
| | Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | entfällt |

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.

- **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**

Keiner der Inhaltsstoffe ist enthalten.

- **Nationale Vorschriften:**
- **Technische Anleitung Luft:**

| Klasse | Anteil in % |
|--------|-------------|
| I | 70,0 |

- **Wassergefährdungsklasse: WGK 1 (Selbsteinstufung):** schwach wassergefährdend.
- **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

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

- **Relevante Sätze**
- H302 Gesundheitschädlich bei Verschlucken.
- H315 Verursacht Hautreizungen.
- H317 Kann allergische Hautreaktionen verursachen.
- H318 Verursacht schwere Augenschäden.
- H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.
- H335 Kann die Atemwege reizen.
- **Abkürzungen und Akronyme:**
- IMDG: International Maritime Code for Dangerous Goods
- 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

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*Acute Tox. 4: Akute Toxizität - oral – Kategorie 4**Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2**Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1**Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2**Resp. Sens. 1: Sensibilisierung der Atemwege – Kategorie 1**Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1**STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3*

DE

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

Stampato il: 14.10.2021

Revisione: 14.10.2021

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** Crystalbond 509
- **Articolo numero:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **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
- **Società 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**



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- Skin Irrit. 2 H315 Provoca irritazione cutanea.
- Eye Irrit. 2 H319 Provoca grave irritazione oculare.

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



GHS07

- **Avvertenza** Attenzione
- **Componenti pericolosi che ne determinano l'etichettatura:**
anidride ftalica
- **Indicazioni di pericolo**
H315 Provoca irritazione cutanea.

(continua a pagina 2)

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

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*H319 Provoca grave irritazione oculare.***· Consigli di prudenza***P264 Lavare accuratamente dopo l'uso.**P280 Indossare guanti / occhiali di protezione / protezione per il viso.**P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.**P332+P313 In caso di irritazione della pelle: consultare un medico.**P362+P364 Togliere tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.**P337+P313 Se l'irritazione degli occhi persiste, consultare un medico.***· Ulteriori dati:***Contiene anidride ftalica. Può provocare una reazione allergica.***· 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: 85-44-9 EINECS: 201-607-5 | anidride ftalica ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | glicol etilenico ⚠ Acute Tox. 4, H302 | >25-≤50% |

· 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****· Indicazioni generali:***I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.***· Inalazione:** Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.**· Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.**· Contatto con gli occhi:***Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.***· Ingestione:** Chiamare subito 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.

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- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

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

SEZIONE 7: Manipolazione e immagazzinamento

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

SEZIONE 8: Controllo dell'esposizione/protezione individuale

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

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

85-44-9 anidride ftalica

| | |
|---------|---|
| TWA | Valore a lungo termine: 6 mg/m ³ , 1 ppm |
| sen, A4 | |

107-21-1 glicol etilenico

| | |
|--------------|--|
| TWA | Limite Ceiling: 100 mg/m ³ |
| A4 (aerosol) | |
| VL | Valore a breve termine: 104 mg/m ³ , 40 ppm |
| | Valore a lungo termine: 52 mg/m ³ , 20 ppm |
| | Pelle |

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

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

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· Guanti protettivi:

Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.

A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.

Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· Materiale dei guanti

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego

· Tempo di permeazione del materiale dei guanti

Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.

· Occhiali protettivi:

Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

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

Solido

· Colore:

Ambra

· Odore:

Inodore

· Soglia olfattiva:

Non definito.

· valori di pH:

Non applicabile.

· Cambiamento di stato**· Punto di fusione/punto di congelamento:**

68,3 °C

· Punto di ebollizione iniziale e intervallo di ebollizione:

>100 °C

· Punto di infiammabilità:

>263 °C

· Infiammabilità (solidi, gas):

Non definito.

· Temperatura di accensione:

410 °C

· Temperatura di decomposizione:

Non definito.

· Temperatura di autoaccensione:

Prodotto non autoinfiammabile.

· Proprietà esplosive:

Prodotto non esplosivo.

· Limiti di infiammabilità:**· Inferiore:**

1,7 Vol %

· Superiore:

53 Vol %

· Tensione di vapore a 20 °C:

0,1 hPa

· Densità a 20 °C:1,31 g/cm³

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| | |
|--|--|
| · Densità relativa | Non definito. |
| · Densità di vapore: | Non applicabile. |
| · Velocità di evaporazione | Non applicabile. |
| · Solubilità in/Miscibilità con acqua: | Insolubile. |
| · Coefficiente di ripartizione: n-ottanolo/acqua: | Non definito. |
| · Viscosità: | |
| · Dinamica: | Non applicabile. |
| · Cinematica: | Non applicabile. |
| · Tenore del solvente: | |
| · Contenuto solido: | 78,0 % |
| · 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.

· **Valori LD/LC50 rilevanti per la classificazione:****85-44-9 anidride ftalica**

| | | |
|-------|------|-------------------|
| Orale | LD50 | 4.200 mg/kg (rat) |
|-------|------|-------------------|

107-21-1 glicol etilenico

| | | |
|---------|------|----------------------|
| Orale | LD50 | 5.840 mg/kg (rat) |
| Cutaneo | LD50 | 9.530 mg/kg (rabbit) |

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **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** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

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- **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 | A |
| · 14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC | Non applicabile. |
| · Trasporto/ulteriori indicazioni: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | non applicabile |

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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.

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

Nessuno dei componenti è contenuto.

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

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

· **Frasei rilevanti**

H302 Nocivo se ingerito.

H315 Provoca irritazione cutanea.

H317 Può provocare una reazione allergica cutanea.

H318 Provoca gravi lesioni oculari.

H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.

H335 Può irritare le vie respiratorie.

· **Abbreviazioni e acronimi:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Tossicità acuta per via orale – Categoria 4

Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2

Eye Dam. 1: Gravi lesioni oculari/irritazione oculare – Categoria 1

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

Resp. Sens. 1: Sensibilizzazione delle vie respiratorie – Categoria 1

Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1

STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3

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1 化学品及び会社情報

- ・製品識別子
- ・商品名: Crystalbond 509
- ・製品番号: 50400-01, 50400-05, 50400-55, 50400-50
- ・該当純物質または混合物の関連特定用途及び使用禁止用途 追加的な関連情報は得られていません。
- ・成分の種類/調合/調製用化学物質
- ・安全データシートの供給元の詳細情報
- ・製造者/納入者:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ・その他の情報問い合わせ先: Product safety department
- ・緊急通報用電話番号:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危険有害性の要約

- ・純物質または混合物の分類



皮膚腐食性/刺激性 区分2 H315 皮膚刺激

重篤な眼の損傷性/眼刺激性 区分2B H320 眼刺激

- ・ラベル要素

- ・GHS ラベル要素

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

- ・危険図表



GHS07

- ・表示語 警告

- ・危険と定められた成分をラベル表示:

phthalic anhydride

ethanediol

- ・危険文句

皮膚および眼刺激

- ・注意文句

取扱い後はよく洗うこと。

保護手袋の着用

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

皮膚刺激が生じた場合：医師の診断/手当てを受けること。

汚染された衣類を脱ぎ、再使用する場合には洗濯をすること。

眼の刺激が続く場合：医師の診断/手当てを受けること。

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- ・その他の危険性
- ・PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント
- ・PBT (残留性、生物濃縮性、毒性物質): 情報なし
- ・vPvB (高残留性、高生物濃縮性物質): 情報なし

3 組成及び成分情報

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

・危険な含有成分:

| | | |
|----------|---|-----------|
| 85-44-9 | phthalic anhydride <ul style="list-style-type: none"> ⚠ 感作性(呼吸器) 区分1, H334; ⚠ 重篤な眼の損傷性/眼刺激性 区分1, H318; ⚠ 急性毒性(経口) 区分4, H302; 皮膚腐食性/刺激性 区分2, H315; 感作性(皮膚) 区分1, H317; 特定標的臓器有害性(単回暴露) 区分3, H335 | >50-≤100% |
| 107-21-1 | ethanediol <ul style="list-style-type: none"> ⚠ 急性毒性(経口) 区分4, H302 | >25-≤50% |

4 応急措置

- ・応急手当処置に関する説明
- ・一般情報:
 - 中毒症状は時間がかかり経過した後に現れる場合もあるため、事故後最低 4 8 時間は医師の監視のもとで過ごすこと
- ・吸い込んだ場合: 意識不明の場合には安定させた状態で横向きに寝かせ、移送する
- ・皮膚が触れた場合: 即刻石鹼と水で洗い、よくすすぐ
- ・眼に入った場合:
 - 眼を開けたまま、流水で何分間か眼をすすぎ、状態がよくなる場合には医者に相談する
- ・飲み込んだ場合: 即医者を呼ぶ
- ・医師への指示事項:
 - 最も重要な急性及び慢性の症状及び影響 追加的な関連情報は得られていません。
 - 何らかの即時医療処置及び特別治療の必要性を示す兆候 追加的な関連情報は得られていません。

5 火災時の措置

- ・消火剤
- ・適切な消火剤: 周辺の状況に合わせた消火措置を取る
- ・本化学物質または混合物から発生する特別な危険性 追加的な関連情報は得られていません。
- ・消防士向けアドバイス
- ・特別な保護装備: 特別な措置は必要としない

6 漏出時の措置

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

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廃棄処分に関しては 13 項参照

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7 取り扱い及び保管上の注意

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

8 ばく露防止及び保護措置

- ・ **技術設備の形体に関する追加注意事項:** その他の申し立てなし、7 項参照
- ・ **管理パラメーター**

- ・ **作業場において限界値の監視を要する成分:**

85-44-9 phthalic anhydride

OEL 最大許容濃度: 2 mg/m³, 0.33 ppm

- ・ **追加注意事項:** 生成時に有効なリストがもとなっている
- ・ **暴露管理**
- ・ **人的保護装備:**
- ・ **一般防止措置および衛生措置:**
- 食物、飲み物、飼料からは遠ざける
- 汚れのしみ込んだ衣類は即刻脱ぐ
- 休憩の前、作業終了後には手を洗う
- 眼に入らないよう、また皮膚に接触しないよう注意する
- ・ **呼吸保護器具:** 必要ない
- ・ **手の保護:**



保護手袋

手袋の材質は物質/材料/調合剤に対して耐性であり、成分を通すことがあってはならない
 テストをおこなっていないため、物質/調合剤/化合物を取り扱う際の手袋の材質として勧められるもの
 はない
 浸透時間、透過性および劣化の点を留意しながら手袋の材質を選択する

手袋材

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

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

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他の情報

追加的な関連情報は得られていません。

10 安定性及び反応性

応反応性追加的な関連情報は得られていません。

- ・化学的安定性
- ・熱分解/揮発/燃焼条件/安定どおりの使用では分解しない
- 危険/燃焼/酸化/不安定な反応は起きていない
- ・避けべき条件/追加的な関連情報は得られていません。
- ・不適合物質: 追加的な関連情報は得られていません。
- ・危険な分解生成物: 危険な分解プロダクトはない

11 有害性情報

・毒性学的影響に関する情報

・急性毒性:

分類/分類/分類 LD/LC50 値:

| | | |
|----------------------------|------|----------------------|
| 85-44-9 phthalic anhydride | | |
| 口 | LD50 | 4,200 mg/kg (rat) |
| 107-21-1 ethanediol | | |
| 口 | LD50 | 5,840 mg/kg (rat) |
| 皮膚 | LD50 | 9,530 mg/kg (rabbit) |

・初期刺激作用

・皮膚において: 皮膚と粘膜を刺激

・眼において: 刺激作用

・感作作用: 感作作用はない

・毒性に関する補足補足補足事項:

調査に関する EU の最新の一般分類ガイドラインの計算によれば、プロダクトでは以下の危険が見込まれる

毒性がある

刺激的

12 環境影響情報

毒性/毒性/毒性

・水生生物に対する毒性: 追加的な関連情報は得られていません。

持続/持続/及び/分解性 追加的な関連情報は得られていません。

・環境システムに及ぼす作用:

生体/生体/蓄積能 追加的な関連情報は得られていません。

・土壌内移動性 追加的な関連情報は得られていません。

・その他のエコロジーに関する注意事項:

・一般注意事項:

水への危険度分類 1 (ドイツの規定) (自己査定): 水に対する危険性はわずかにある

薄めずに、あるいは大量に地下水、河川もしくは下水施設に流してはならない

・PBT (残留性、生物濃縮性、毒性物質) 及び vPvB (高残留性、高生物濃縮性物質) アセスメント

・PBT (残留性、生物濃縮性、毒性物質): 情報なし

・vPvB (高残留性、高生物濃縮性物質): 情報なし

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他の他作製作用能的な関連情報は得られていません。

13 廃棄上の注意

廃棄廃棄物処理方法

勧告勧告家庭ごみとはいっしょに処分できない。下水処理施設に流してはならない

・洗淨されていないガツケツツ:

勧告勧告関係当局の規則に従って処分する

14 輸送上の注意

・環境危険: 情報なし

・ユーザー用特別予防措置 情報なし

・Stowage Category A

・マルポール条約 (MARPOL73/78) 付属書I及び及び
IBCコードに準じたバ輸送輸送輸送 情報なし

輸送輸送輸送他の説明:

・IMDG

・Limited quantities (LQ) 5 kg

・Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

・UN "糞糞規制規制 無効

15 適用法令

・該当純物質または混合物に対する安全、衛生及び環境規制・法律

・化審法

既存既存観物質

| | | |
|----------|--------------------|--------|
| 85-44-9 | phthalic anhydride | 3-1344 |
| 107-21-1 | ethanediol | 2-230 |

・特定化学物質

内容成分はリストアップされていない

・監視化学物質、旧第二種監視化学物質、旧第三種監視化学物質

| | | |
|---------|--------------------|-----|
| 85-44-9 | phthalic anhydride | 旧第二 |
|---------|--------------------|-----|

・優価評価認物質

| | | |
|----------|------------|--|
| 107-21-1 | ethanediol | |
|----------|------------|--|

物質物質物質

内容成分はリストアップされていない

既存既存観物質安全性点検結果 (分解性・蓄積性) 性)

全ての内容成分はリストアップされている

既存既存観物質安全性点検結果 (毒性)

内容成分はリストアップされていない

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・PR制度制度制策一種指定化学物質

85-44-9 phthalic anhydride

413

・PR制度制度制策二種指定化学物質

内容成分はリストアップされていない

・毒物及劇物取締法:劇物

内容成分はリストアップされていない

・毒物及劇物取締法:有機シアン化合物から除かれるもの

内容成分はリストアップされていない

・毒物及劇物取締法:劇物毒物

内容成分はリストアップされていない

・毒物及劇物取締法:特定毒物

内容成分はリストアップされていない

労働労働安全衛生法

・危険物

・爆発性の物 (施錠表別表第1号) 号)

内容成分はリストアップされていない

・発火性の物 (施錠表別表第2号) 号)

内容成分はリストアップされていない

・酸化性の物 (施錠表別表第3号) 号)

内容成分はリストアップされていない

・引火性の物 (施錠表別表第4号) 号)

内容成分はリストアップされていない

可燃性液体 (施錠表別表第5号) 号)

内容成分はリストアップされていない

・特定化学物質等

・第一類物質

内容成分はリストアップされていない

第二類物質

内容成分はリストアップされていない

第三類物質

内容成分はリストアップされていない

称答称毒称通知すべき有害物 (別表第9)

85-44-9 phthalic anhydride

553

107-21-1 ethanediol

75

製造製造製造物質

内容成分はリストアップされていない

鉛中鉛中毒規規則規施錠表別表第表)

内容成分はリストアップされていない

ア四アル鉛中鉛中毒規規則規施錠表別表第表)

内容成分はリストアップされていない

機溶機溶機溶毒予防規則第 (施錠表別表第表の2)

・第一種機溶機溶

内容成分はリストアップされていない

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・ **第二種有機溶剤類**

内容成分はリストアップされていない

・ **第三種有機溶剤類**

内容成分はリストアップされていない

い **強臭・変色・変性・原認がられた化学物質**

内容成分はリストアップされていない

・ **消防法**

107-21-1 ethanediol

・ **海洋汚染防止法**

全ての内容成分はリストアップされている

・ **特定物質等の規制等によるオゾン層の保護に関する法律**

・ **特定物質物質物質物質**

内容成分はリストアップされていない

・ **特定物質**

内容成分はリストアップされていない

・ **大気汚染防止法**

内容成分はリストアップされていない

・ **水質汚濁防止法**

・ **有害物質物質**

内容成分はリストアップされていない

・ **指定物質**

内容成分はリストアップされていない

・ **GHS ラベル要素**

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

・ **危険図表**



GHS07

・ **表示語 警告**

・ **危険と定められた成分をラベル表示:**

phthalic anhydride

ethanediol

・ **危険文句**

皮膚および眼刺激

・ **注意文句**

取扱い後はよく洗うこと。

保護手袋の着用

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

皮膚刺激が生じた場合: 医師の診断/手当てを受けること。

汚染された衣類を脱ぎ、再使用する場合には洗濯をすること。

眼の刺激が続く場合: 医師の診断/手当てを受けること。

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・化学物質の安齋価評価評価化学物質安全性評価が遂行されていない

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16 その他の情報

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

・縮約と二文字語:

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

PRTR/化管法: 化学物質排出把握管理促進法

急性毒性(経口) 区分4: Acute toxicity – Category 4

皮膚腐食性/刺激性 区分2: Skin corrosion/irritation – Category 2

重篤な眼の損傷性/眼刺激性 区分1: Serious eye damage/eye irritation – Category 1

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

感作性(呼吸器) 区分1: Respiratory sensitisation – Category 1

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

特定標的臓器有害性(単回暴露) 区分3: Specific target organ toxicity (single exposure) – Category 3

물질안전보건자료 GHS에 따라라따

인쇄일자: 2021.10.14

개정: 2021.10.14

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· **신호어** 경고

· **상표상에 명확히 위험성이 표시된 성분:**

phthalic anhydride
ethanediol

유해 유해 유해 유해 문구

피부에 자극을 일으킴
눈에 심한 자극을 일으킴

· **예방 조치** 문구 문구

취급 후에는 취급 부위를 철저히 씻으시오.
보호장갑 / 눈 보호대 / 안면 보호구 착용.
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
피부 자극이 생기면 의학적인 조언. 주의를 받으시오.
오염된 의복은 벗고 다시 사용 전 세척하십시오.
눈에 대한 자극이 지속되면 의학적인 조언. 주의를 받으시오.

기타 기타 유해성

· PBT(잔류성, 생물농축성, 물성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 관한 평가 결과
· PBT(잔류성, 생물농축성, 물성물질)에 해당 사항 없음.
· vPvB(고 잔류성, 고 생물농축성 물질)에 해당 사항 없음.

3 구성성분의 명칭 및 함유량

· **화학적 특성:** 혼합물

설명 설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험 요소**

| | | |
|----------|--|-----------|
| 85-44-9 | phthalic anhydride ⚠ 호흡기 과민성 - 구분 1, H334; ⚠ 심한 눈 손상성/눈 자극성 - 구분 1, H318; ⚠ 급성 독성 - 경구 - 구분 4, H302; 피부 부식성/피부 자극성 - 구분 2, H315; 피부 과민성 - 구분 1, H317; 특정표적장기 독성 - 1회 노출 - 구분 3, H335 | >50-≤100% |
| 107-21-1 | ethanediol ⚠ 급성 독성 - 경구 - 구분 4, H302 | >25-≤50% |

4 응급조치 요령

· **응급 조치 외용 내용**

· **일반 정보**

중독 증상은 몇 시간 간지 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간 동안은 의료진의 관찰을 받아야 한다.

· **흡입했을 때:** 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.

· **눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 증상이 지속될 경우에는 의사와 상담한다

· **먹었을 때:** 즉시 의사의 도움을 구한다.

기타 기타 기재의 주의 사항:

가장 가장 중요한 건강 및 환경 영향에 대한 정보가 존재하지 않습니다.

· **즉각적인 의료 처치 및 특별 치료가 필요함을 시사하는 징후**에 대한 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

· **소화제**

· **적절한 소화제:** 주변 환경에 맞는 화재 진화 방법을 사용한다.

· **본 화학 물질이나 혼합물에서 발생 가능한 특별한 위험**에 대한 추가적인 정보가 존재하지 않습니다.

(3 쪽에 계속)

물질안전보건자료 GHS에 따라 라다

인쇄일자: 2021.10.14

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· **중요정보** 정보로 할 당시에 유효한 목록을 기초로 사용했다.

노출 통제를 통제
개인 개인

- **일반적 보호 조치 및 위생 조치:**
 · 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
 · 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
 · 휴식 전이나 작업이 끝날 때 마다 손을 씻는다.
 · 눈과 피부와의 접촉은 피한다.

· **호흡기 보호** 필요 없음.

보통 보호 보호



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.
 테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
 통과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑 의 재료**

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

· **장갑 재료의 통과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지도되고, 준수되어야 한다.

보통 보호 보호



확조이는 보안경

9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

| | |
|-------------------------|-----------|
| · 일반 정보 | |
| · 외형 | 고체 |
| · 물리적 상태 | 호박색 |
| · 색: | 무취의 |
| · 냄새 | 알맞지 않다. |
| · 후각역치 | |
| · pH: | 해당 사항 없음. |
| · 상태 변화 | |
| · 녹는점/어는점: | 68.3 °C |
| · 초기 끓는점과 끓는점 범위 | >100 °C |
| · 인화점: | >263 °C |
| · 인화성 고체 액체 | 알맞지 않다. |
| · 점화 온도: | 410 °C |
| · 분해 온도 | 알맞지 않다. |

(5 쪽에 계속)

물질안전보건자료 GHS에 따라라다

인쇄일자: 2021.10.14

개정: 2021.10.14

제품명: Crystalbond 509

(5 쪽부터 계속)

· 추가적인 독성에 관한 정보

이제 품은 유럽공동체의공통분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전 준비에대하여제시하고있다.

건강에해로운
자극적인

12 환경에 미치는 영향

독성독성독성

- **수생독성:** 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동:**
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.
- **추가적인 생태학 정보**

일반 열안정성 특징

수질오염등급 1 (자체등급분류): 약하게수질오염이된
희석시키지않은채대량으로지하수나, 하천으로그리고하수도망에도달하지않게한다.

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

기타기타 **부작용** 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

· 폐기물 처리 방법

권고 권고 **환경** 쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

· 비위생적 포장 포장

권고 권고 **환경** 의지침에입각한쓰레기처리.

14 운송에 필요한 정보

| | |
|---|--|
| · 환경적 유해물질: | 해당사항 없음. |
| · 이동지정 특별 취급 조치 · Stowage Category | 해당사항 없음. A |
| · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 | 해당사항 없음. |
| · 운송/추가정보 | |
| · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN번호/위험등급 유제 | 누락되다 |

KR

(7 쪽에 계속)

물질안전보건자료

GHS에 따라라따

인쇄일자: 2021.10.14

개정: 2021.10.14

제품명: Crystalbond 509

(6 쪽부터계속)

15 법적 규제현황

· 산업안전보건법에 의해 규제

제조제조금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

모든내용물이목록화되어있다

· 작업환경측정 대상 유해인자

| | | |
|----------|--------------------|------|
| 85-44-9 | phthalic anhydride | 1A38 |
| 107-21-1 | ethanediol | 1A70 |

· 특수건강 측정 대상 유해인자

| | | |
|----------|--------------------|-------|
| 85-44-9 | phthalic anhydride | 1A101 |
| 107-21-1 | ethanediol | 1A61 |

해당 해당 물질 또는 혼합물에 대한 안전보건자료 작성 관련 법률

· Korean Existing Chemical Inventory

| | | |
|----------|--------------------|----------|
| 85-44-9 | phthalic anhydride | KE-21147 |
| 107-21-1 | ethanediol | KE-13169 |

· 화학물질관리법

· 사고대비물질

어떠한내용물도목록화되어있지않다

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

어떠한내용물도목록화되어있지않다

· 유독물질

어떠한내용물도목록화되어있지않다

· 허가물질

어떠한내용물도목록화되어있지않다

· 위험물안전관리법 (위험물 및 지정수량) 제 4: 4,000 리터

등록등록물질 또는 선제대상 화학물질

어떠한내용물도목록화되어있지않다

· ‘21년까지 등록하여야 할 압, 들연번이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질

어떠한내용물도목록화되어있지않다

· 중점관리물질(양) 지정 지정

· 표1 중점관리물질(재관전관련관련

어떠한내용물도목록화되어있지않다

· 표2 중점관리물질(재관전관련관련

어떠한내용물도목록화되어있지않다

· GHS 라벨링 요소

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

(8 쪽에계속)

安全資料表

據根根據據據性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

1 化學品與廠商資料

- 產品識別者
- 化學品中文名稱名稱名稱化學品俗名或商品名: Crystalbond 509
- 商品編號: 50400-01, 50400-05, 50400-55, 50400-50
- 相應純物質或者混合物的相關下位用途及禁止用途 無相關詳細資料。
- 原材料的應用/準備工作進行 實驗室化學物
- 安全技術說明書內供應商詳細信息
- 企業名稱:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- 可獲取更多資料的部門: Product safety department
- 緊急聯繫電話號碼:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危害辨識資料

- 緊急情況概述:
琥珀色的，固體，吞食可能有害。造成皮膚和眼刺激。

- GHS危險性類別



腐蝕/刺激皮膚物質 第2級 H315 造成皮膚刺激

急毒性物質(吞食) 第5級 H303 吞食可能有害

嚴重損傷/刺激眼睛物質 第2B級 H320 造成眼睛刺激

- 標籤因素

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



GHS07

- 名稱名稱名稱

- 標籤上辨別危險的成份:

酞酐

乙二醇

- 危險字句

吞食可能有害

造成皮膚和眼刺激

- 警戒字句

- 預防措施

戴防護手套。

(在 2 頁繼續)

安全資料表

據根根據據性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

化學品中文名稱名稱名稱化學品俗名或商品名：Crystalbond 509

(在 1 頁繼續)

· 事故響應

- 如進入眼睛：用水小心清洗數分鐘。如帶隱形眼鏡且可方便地取出，取出隱形眼鏡。繼續清洗。
- 如感覺不適，呼叫解毒中心/醫生
- 專項處置(參見本標示)。
- 脫掉沾染的衣服，清洗後方可重新使用
- 如發生皮膚刺激：求醫治療/諮詢。

· 其他有害性

- PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果
- PBT(殘留性、生物濃縮性、毒性物質) 不適用的
- vPvB(高殘留性、高生物濃縮性物質): 不適用的

3 成分辨識資料

· 混合物

描述描述描述以下含有無害添加劑的成分組成的混合物

· 危險的成分:

| | | |
|----------|---|-----------|
| 85-44-9 | 酞酐 ⚠ 呼吸道過敏物質 第1級, H334; ⚠ 嚴重損傷/刺激眼睛物質 第1級, H318; ⚠ 急毒性物質(吞食) 第4級, H302; 腐蝕/刺激皮膚物質 第2級, H315; 皮膚過敏物質 第1級, H317; 特定標的器官系統毒性物質(單一暴露) 第3級, H335 | >50-≤100% |
| 107-21-1 | 乙二醇 ⚠ 急毒性物質(吞食) 第4級, H302 | >25-≤50% |

4 急救措施

· 應急措施要領

- 總說明: 中毒的症狀可能會在幾個小時以後才出現;因此在發生事故之後起碼要有 48 小時的醫療觀察。
- 吸入吸入吸入一病人不清醒時,請讓病人側躺以便移動。
- 皮膚接觸: 馬上用水和肥皂進行徹底的沖洗。
- 眼睛接觸: 張開眼睛在流水下沖洗數分鐘。如果症狀仍然持續,請諮詢醫生。
- 食入食入食入上召喚醫生。

· 給醫生的資料:

- 最重要的急慢性症狀及其影響 無相關詳細資料。
- 需要及時的醫療處理及特別處理的症狀 無相關詳細資料。

5 滅火措施

· 滅火方法

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

6 洩漏處理方法

- 保護措施 沒有要求。
- 環境保護措施: 切勿讓其進入下水道/水面或地下水。
- 密封及淨化方法和材料: 根據第 13 條條款棄置受汙染物。

(在 3 頁繼續)

安全資料表

據根據危險性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

化學品中文名稱名稱/化學品俗名或商品名：Crystalbond 509

(在 2 頁繼續)

- 參照其他部分
- 有關安全處理的資料請參閱第 7 節.
- 有關個人保護裝備的資料請參閱第 8 節.
- 有關棄置的資料請參閱第 13 節.

7 安全處置與儲存方法

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

8 暴露預防措施

- 工程控制方法: 沒有進一步數據;見第 7 項.
- 控制變數

在工作場需要監控的限值成分

85-鞣酐酐酐酐

| | |
|----------|---------------------------------------|
| PEL (TW) | PC-TWA: 6.1 mg/m ³ , 1 ppm |
| OEL (CN) | 上限值: 1 mg/m ³ 敏 |

107-21-1 乙二醇

| | |
|----------|---|
| PEL (TW) | PC-TWA: 10* 127** mg/m ³ , 50** ppm *mist **vapor |
| OEL (CN) | PC-STEL: 40 mg/m ³ PC-TWA: 20 mg/m ³ |

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



保護手套

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

(在 4 頁繼續)

安全資料表

據根據據據性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

化學品中文名稱名稱名稱化學品俗名或商品名：Crystalbond 509

(在 3 頁繼續)

- **手套材料**
選擇合適的手套不單取決於材料，亦取決於質量特征，以及來自哪一間生產廠家，因為該產品是由很多材料配制而成，手套材料的抵抗力並不可預計，所以，必須在使用之前進行檢查
- **滲入手套材料的時間** 請向勞保手套生產廠家獲取準確的破裂時間並觀察實際的破裂時間
- **眼睛防護：**



密封的護目鏡

9 物理及化學性質

| | |
|----------------------------|------------------------|
| · 有關基本物理及化學特性的資訊 | |
| · 一般說明 | |
| 外觀外觀外觀 | 固體 |
| 形狀形狀形狀 | 琥珀色的 |
| 顏色顏色顏色 | 無氣味的 |
| 氣味氣味氣味 | 未決定. |
| · 嗅覺閾限 | |
| · pH值: | 不適用的 |
| · 條件的更改 | |
| 溶點熔點熔點 | 68.3 °C |
| 沸點沸點沸點沸點和沸程: | >100 °C |
| 閃點閃點閃點 | >263 °C |
| · 可燃性 (固體、氣體): 未決定. | |
| · 點火溫度: | 410 °C |
| · 分解溫度: | 未決定. |
| · 自燃溫度: | 該產品是不自燃的 |
| · 爆炸的危險性: | 該產品並沒有爆炸的危險 |
| · 爆炸極限: | |
| 較低較低較低 | 1.7 Vol % |
| 較高較高較高 | 53 Vol % |
| · 蒸氣壓 在 20 °C: | 0.1 hPa |
| 密度密度密度0 °C: | 1.31 g/cm ³ |
| · 相對密度密度 | 未決定. |
| · 蒸氣密度 | 不適用的 |
| · 蒸發速率 | 不適用的 |
| 溶解性 | |
| · 水: | 不能溶解的 |
| · n-辛醇/水係數係數係 | 未決定. |
| · 黏性: | |
| 動態動態動態 | 不適用的 |
| 運動運動運動學的 | 不適用的 |

(在 5 頁繼續)

安全資料表

據根據危險性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

化學品中文名稱名稱/化學品俗名或商品名：Crystalbond 509

(在 4 頁繼續)

- 溶劑成份:
- 固體成份: 78.0 %
- 其他資訊 無相關詳細資料。

10 安定性及反應性

- 穩定性應相關詳細資料。
- 穩定穩定穩定
- 分解分解分解免的情況: 如果遵照規格使用則不會分解。
- 有害有礙有礙可能無 未有已知的危險反應。
- 避免避免避免條件 無相關詳細資料。
- 不相容的物質: 無相關詳細資料。
- 危險的分解產物: 未知有危險的分解產品。

11 毒性資料

- 對毒性學影響的資訊
 - 急性毒性:
- | 與分類相關的 LD/ LC50 值: | | |
|--------------------|------|----------------------|
| 85-鞣酐酐酐酐酐 | | |
| 口腔 | LD50 | 4,200 mg/kg (rat) |
| 107-21-1 乙二醇 | | |
| 口腔 | LD50 | 5,840 mg/kg (rat) |
| 皮膚 | LD50 | 9,530 mg/kg (rabbit) |
- 要的調劑刺激影響:
 - 皮膚皮膚皮膚刺激皮膚和粘膜。
 - 在眼睛上面: 刺激的影響。
 - 致敏致敏致敏作用有已知的敏化影響。
 - 更多毒物的資料:
 - 根據有關配製的一般歐盟分類指南的計算方法 (刊印在最新版本),該產品顯示以下的危險:
 - 有害的
 - 刺激性的

12 生態資料

- 毒態毒性毒性
- 水生毒性: 無相關詳細資料。
- 持久性和降解性無相關詳細資料。
- 環境系統習性:
- 潛在的累積累積無相關詳細資料。
- 土壤土壤移動性無相關詳細資料。
- 額外的生態學資料:
- 括總括注解注
- 水危害級別 1(德國規例) (通過名單進行自我評估): 對水是稍微危害的
- 不要讓未稀釋或大量的產品接觸地下水、水道或者汗水系統。
- PBT(殘留性、生物濃縮性、毒性物質) 及 vPvB(高殘留性、高生物濃縮性物質) 評價結果
- PBT(殘留性、生物濃縮性、毒性物質) 不適用的
- vPvB(高殘留性、高生物濃縮性物質): 不適用的

(在 6 頁繼續)

安全資料表

據根據據據性化學品標示及通識規則

打印日期 2021.10.14

在 2021.10.14 審核

化學品中文名稱名稱名稱化學品俗名或商品名：Crystalbond 509

其他其他圖他用無相關詳細資料。

(在 5 頁繼續)

13 廢棄處置方法

廢棄廢棄處置方法

建議建議建議能將該產品和家居垃圾一起丟棄. 不要讓該產品接觸汗水系統.

· 受污染的容器和包裝:

建議建議建議須根據官方的規章來丟棄.

14 運送資料

| | |
|---|--|
| · 危害環境: | 不適用的 |
| · 用戶特別預防措施 | 不適用的 |
| · Stowage Category | A |
| · MARPOL73/78(針對船舶引起的海洋污染預防協約 件附件書根據根據國際國際貨物編碼)值大量大量 運送運送運送 | 不適用的 |
| 運輸運輸運輸的資料: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "標準規定": | 無效 |

15 法規資料

- 對相應純物質或者混合物的安全、保健及環境法規/法律
- 優先管理化學品之指定及運作管理辦法

附表附表附對於未滿十八歲區域區域後未滿女年女性變工工具危害性之化學品

沒有列出成份

二條二條二條第款第

沒有列出成份

二條二條二條第款第

107-21-1 乙二醇

· 新化學物質及既有化學物質資料登錄辦法 英

107-21-1 乙二醇

國現國現國現化學物質名錄

列出所有成分

· TCSCA

列管編號編號編號

85-44-9 酞酐

73/01

(在 7 頁繼續)

安全資料表

據根據危險性化學品標示及通識規則

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在 2021.10.14 審核

化學品中文名稱名稱/化學品俗名或商品名：Crystalbond 509

(在 6 頁繼續)

| | | |
|--|-----|----|
| · 毒性分類 | | |
| 85-44-9 | 酞酐 | 3 |
| · 管制濃度 (w/w%) | | |
| 85-44-9 | 酞酐 | 1 |
| · 大量運作基準(公斤) | | |
| 85-44-9 | 酞酐 | 50 |
| · 新化學物質及既有化學物質資料登錄辦法, 附表六 | | |
| 107-21-1 | 乙二醇 | |
| · TCSI - Taiwan Chemical Substance Inventory | | |
| 列出所有成分 | | |

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

圖示圖示圖示



GHS07

名稱名稱名稱

· 標籤上辨別危險的成份:

酞酐

乙二醇

· 危險字句

吞食可能有害

造成皮膚和眼刺激

· 警戒字句

· 預防措施

戴防護手套。

· 事故響應

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

如感覺不適，呼叫解毒中心/醫生

專項處置(參見本標示)。

脫掉沾染的衣服，清洗後方可重新使用

如發生皮膚刺激：求醫治療/諮詢。

· 化學物質安全性評價：尚未進行化學物質安全性評價

16 其他資料

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

· 縮寫:

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累積性有毒物質

vPvB: very Persistent and very Bioaccumulative

急毒性物質(吞食) 第4級: Acute toxicity – Category 4

急毒性物質(吞食) 第5級: Acute toxicity – Category 5

腐蝕/刺激皮膚物質 第2級: Skin corrosion/irritation – Category 2

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嚴重損傷/刺激眼睛物質 第1級: Serious eye damage/eye irritation – Category 1

嚴重損傷/刺激眼睛物質 第2B級: Serious eye damage/eye irritation – Category 2B

呼吸道過敏物質 第1級: Respiratory sensitisation – Category 1

皮膚過敏物質 第1級: Skin sensitisation – Category 1

特定標的器官系統毒性物質(單一暴露) 第3級: Specific target organ toxicity (single exposure) – Category 3

-TW-

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SECÇÃO 1: Identificação da substância/mistura e da sociedade/empresa

- **1.1 Identificador do produto**
- **Nome comercial:** Crystalbond 509
- **Código do produto:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **1.2 Utilizações identificadas relevantes da substância ou mistura e utilizações desaconselhadas**
Não existe mais nenhuma informação relevante disponível.
- **Utilização da substância / da preparação** Químicos de laboratório
- **1.3 Identificação do fornecedor da ficha de dados de segurança**
- **Fabricante/fornecedor:**
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
- **Entidade para obtenção de informações adicionais:** Product safety department
- **1.4 Número de telefone de emergência:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECÇÃO 2: Identificação dos perigos

- **2.1 Classificação da substância ou mistura**
- **Classificação em conformidade com o Regulamento (CE) n.º 1272/2008**



GHS07

Skin Irrit. 2 H315 Provoca irritação cutânea.
Eye Irrit. 2 H319 Provoca irritação ocular grave.

- **2.2 Elementos do rótulo**
- **Rotulagem em conformidade com o Regulamento (CE) n.º 1272/2008**
O produto classificou-se e está etiquetado em conformidade com o regulamento CLP.
- **Pictogramas de perigo**



GHS07

- **Palavra-sinal** Atenção
- **Componentes determinantes para os perigos constantes do rótulo:**
anidrido ftálico
- **Advertências de perigo**
H315 Provoca irritação cutânea.
H319 Provoca irritação ocular grave.
- **Recomendações de prudência**
P264 Lavar cuidadosamente após manuseamento.
P280 Usar luvas de protecção / protecção ocular / protecção facial.
P305+P351+P338 SE ENTRAR EM CONTACTO COM OS OLHOS: Enxaguar cuidadosamente com água durante vários minutos. Se usar lentes de contacto, retire-as, se tal lhe for possível. Continue a enxaguar.

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- P332+P313 Em caso de irritação cutânea: consulte um médico.
 P362+P364 Retirar a roupa contaminada e lavá-la antes de a voltar a usar.
 P337+P313 Caso a irritação ocular persista: consulte um médico.

· **Indicações adicionais:**

Contém anidrido ftálico. Pode provocar uma reacção alérgica.

· **2.3 Outros perigos**

· **Resultados da avaliação PBT e mPmB**

· **PBT:** Não aplicável.

· **mPmB:** Não aplicável.

SECÇÃO 3: Composição/informação sobre os componentes

· **3.2 Caracterização química: Misturas**

· **Descrição:** Mistura das seguintes substâncias com aditivos não perigosos.

· **Substâncias perigosas:**

| | | |
|------------------------------------|---|-----------|
| CAS: 85-44-9 EINECS: 201-607-5 | anidrido ftálico ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | etandiol ⚠ Acute Tox. 4, H302 | >25-≤50% |

· **Avisos adicionais:** O texto das indicações de perigo aqui incluído poderá ser consultado no capítulo 16.

SECÇÃO 4: Medidas de primeiros socorros

· **4.1 Descrição das medidas de primeiros socorros**

· **Indicações gerais:**

Os sintomas de envenenamento podem surgir apenas após várias horas, por isso é necessária vigilância médica pelo menos 48 horas após o acidente.

· **Em caso de inalação:**

Se a vítima estiver inconsciente, posicioná-la e transportá-la com estabilidade, deitada lateralmente.

· **Em caso de contacto com a pele:** Lavar imediatamente com água e sabão e enxaguar abundantemente.

· **Em caso de contacto com os olhos:**

Enxaguar os olhos durante alguns minutos sob água corrente, mantendo as pálpebras abertas. Em caso de persistência dos sintomas, consultar o médico.

· **Em caso de ingestão:** Consultar imediatamente o médico

· **4.2 Sintomas e efeitos mais importantes, tanto agudos como retardados**

Não existe mais nenhuma informação relevante disponível.

· **4.3 Indicações sobre cuidados médicos urgentes e tratamentos especiais necessários**

Não existe mais nenhuma informação relevante disponível.

SECÇÃO 5: Medidas de combate a incêndios

· **5.1 Meios de extinção**

· **Meios adequados de extinção:** Coordenar no local medidas para extinção do fogo.

· **5.2 Perigos especiais decorrentes da substância ou mistura**

Não existe mais nenhuma informação relevante disponível.

· **5.3 Recomendações para o pessoal de combate a incêndios**

· **Equipamento especial de protecção:** Não são necessárias medidas especiais.

PT

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SECÇÃO 6: Medidas a tomar em caso de fugas acidentais

- **6.1 Precauções individuais, equipamento de protecção e procedimentos de emergência** Não necessário.
- **6.2 Precauções a nível ambiental:** Evitar que penetre na canalização / águas superficiais / águas subterrâneas.
- **6.3 Métodos e materiais de confinamento e limpeza:**
Eliminar residualmente as substâncias contaminadas como um resíduo segundo o Ponto 13.
- **6.4 Remissão para outras secções**
Para informações sobre uma manipulação segura, ver o capítulo 7.
Para informações referentes ao equipamento de protecção individual, ver o capítulo 8.
Para informações referentes à eliminação residual, ver o capítulo 13.

SECÇÃO 7: Manuseamento e armazenagem

- **7.1 Precauções para um manuseamento seguro**
Em caso de utilização correcta, não são necessárias medidas especiais.
- **Precauções para prevenir incêndios e explosões:** Não são necessárias medidas especiais.
- **7.2 Condições de armazenagem segura, incluindo eventuais incompatibilidades**
- **Armazenagem:**
- **Requisitos para espaços ou contentores para armazenagem:** Sem requisitos especiais.
- **Avisos para armazenagem conjunta:** Não necessário.
- **Outros avisos sobre as condições de armazenagem:** Manter o recipiente hermeticamente fechado.
- **7.3 Utilização(ões) final(is) específica(s)** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 8: Controlo da exposição/Protecção individual

- **Indicações adicionais para concepção de instalações técnicas:** Não existem outras informações, ver ponto 7.
- **8.1 Parâmetros de controlo**

· **Componentes cujo valor do limite de exposição no local de trabalho deve ser monitorizado:**

85-44-9 anidrido ftálico

VLE Valor para exposição longa: 1 ppm
SC,SR,A4;Irritação ocular, do TRS e cutânea

107-21-1 etandiol

VLE Valor limite de exposição – concentração máxima: (100) mg/m³
apenas aerossol, A4; Irritação ocular, do TRS

- **Indicações adicionais:** Foram utilizadas como base as listas válidas à data da elaboração.
- **8.2 Controlo da exposição**
- **Equipamento de protecção individual:**
- **Medidas gerais de protecção e higiene:**
Manter afastado de alimentos, bebidas e forragens.
Despir imediatamente a roupa contaminada e embebida.
Lavar as mãos antes das pausas e no fim do trabalho.
Evitar o contacto com os olhos e com a pele.
- **Protecção respiratória:** Não necessário.
- **Protecção das mãos:**



Luvas de protecção

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O material das luvas tem de ser impermeável e resistente ao produto / à substância / preparação.
Uma vez que não foram realizados testes nesta área, não podemos recomendar um determinado tipo de material para as luvas que seja adequado para o produto / a preparação / a mistura de químicos.

Escolher o material das luvas tendo em consideração a durabilidade, a permeabilidade e a degradação.

· **Material das luvas**

A escolha das luvas mais adequadas não depende apenas do material, mas também de outras características qualitativas e varia de fabricante para fabricante. O facto de o produto ser composto por uma variedade de materiais leva a que não seja possível prever a duração dos mesmos e, conseqüentemente, das luvas, sendo assim necessário proceder a uma verificação antes da sua utilização.

· **Tempo de penetração no material das luvas**

Deve informar-se sobre a validade exacta das suas luvas junto do fabricante e respeitá-la.

· **Protecção dos olhos:**



Óculos de protecção totalmente fechados

SECÇÃO 9: Propriedades físico-químicas

· **9.1 Informações sobre propriedades físicas e químicas de base**

· **Informações gerais**

· **Aspetto:**

· **Forma:** Sólido

· **Cor:** Cor de âmbar

· **Odor:** Inodoro

· **Limiár olfactivo:** Não determinado.

· **valor pH:** Não aplicável.

· **Mudança do estado:**

· **Ponto de fusão/ponto de congelação:** 68,3 °C

· **Ponto de ebulição inicial e intervalo de ebulição:** >100 °C

· **Ponto de inflamação:** >263 °C

· **Inflamabilidade (sólido, gás):** Não determinado.

· **Temperatura de ignição:** 410 °C

· **Temperatura de decomposição:** Não determinado.

· **Temperatura de autoignição:** O produto não é auto-inflamável.

· **Propriedades explosivas:** O produto não corre o risco de explosão.

· **Limites de explosão:**

· **Inferior:** 1,7 Vol %

· **Superior:** 53 Vol %

· **Pressão de vapor em 20 °C:** 0,1 hPa

· **Densidade em 20 °C:** 1,31 g/cm³

· **Densidade relativa** Não determinado.

· **Densidade de vapor** Não aplicável.

· **Taxa de evaporação:** Não aplicável.

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(continuação da página 4)

| | |
|---|--|
| · Solubilidade em / miscibilidade com água: | Insolúvel. |
| · Coeficiente de partição: n-octanol/água | Não determinado. |
| · Viscosidade: | |
| · Dinâmico: | Não aplicável. |
| · Cinemático: | Não aplicável. |
| · Percentagem de solvente: | |
| · Percentagem de substâncias sólidas: | 78,0 % |
| · 9.2 Outras informações | Não existe mais nenhuma informação relevante disponível. |

SECÇÃO 10: Estabilidade e reactividade

- 10.1 Reactividade Não existe mais nenhuma informação relevante disponível.
- 10.2 Estabilidade química
- Decomposição térmica / condições a evitar: Não existe decomposição se usado de acordo com as especificações.
- 10.3 Possibilidade de reações perigosas Não se conhecem reacções perigosas.
- 10.4 Condições a evitar Não existe mais nenhuma informação relevante disponível.
- 10.5 Materiais incompatíveis: Não existe mais nenhuma informação relevante disponível.
- 10.6 Produtos de decomposição perigosos: Não se conhecem produtos de decomposição perigosos.

SECÇÃO 11: Informação toxicológica

- 11.1 Informações sobre os efeitos toxicológicos
- Toxicidade aguda Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

· Valores LD/LC50 relevantes para a classificação:

85-44-9 anidrido ftálico

| | | |
|--------------|------|-------------------|
| por via oral | LD50 | 4.200 mg/kg (rat) |
|--------------|------|-------------------|

107-21-1 etandiol

| | | |
|-----------------|------|----------------------|
| por via oral | LD50 | 5.840 mg/kg (rat) |
| por via dérmica | LD50 | 9.530 mg/kg (rabbit) |

- Efeito de irritabilidade primário:
- Corrosão/irritação cutânea
Provoca irritação cutânea.
- Lesões oculares graves/irritação ocular
Provoca irritação ocular grave.
- Sensibilização respiratória ou cutânea
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- Efeitos CMR (carcinogenicidade, mutagenicidade e efeitos tóxicos na reprodução)
- Mutagenicidade em células germinativas
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- Carcinogenicidade Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- Toxicidade reprodutiva Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- Toxicidade para órgãos-alvo específicos (STOT) - exposição única
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.
- Toxicidade para órgãos-alvo específicos (STOT) - exposição repetida
Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

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· **Perigo de aspiração** Com base nos dados disponíveis, os critérios de classificação não são preenchidos.

SECÇÃO 12: Informação ecológica

- **12.1 Toxicidade**
- **Toxicidade aquática:** Não existe mais nenhuma informação relevante disponível.
- **12.2 Persistência e degradabilidade** Não existe mais nenhuma informação relevante disponível.
- **12.3 Potencial de bioacumulação** Não existe mais nenhuma informação relevante disponível.
- **12.4 Mobilidade no solo** Não existe mais nenhuma informação relevante disponível.
- **Outras indicações ecológicas:**
- **Indicações gerais:**
Classe de perigo para a água 1 (D) (auto-classificação): pouco perigoso para a água
Não deixar chegar substâncias concentradas, ou seja quantidades grandes, às águas subterrâneas, aos cursos de água ou à canalização.
- **12.5 Resultados da avaliação PBT e mPmB**
- **PBT:** Não aplicável.
- **mPmB:** Não aplicável.
- **12.6 Outros efeitos adversos** Não existe mais nenhuma informação relevante disponível.

SECÇÃO 13: Considerações relativas à eliminação

- **13.1 Métodos de tratamento de resíduos**
- **Recomendação:** Não se pode eliminar juntamente com o lixo doméstico. Não permita que chegue à canalização.
- **Embalagens contaminadas:**
- **Recomendação:** Eliminação residual conforme o regulamento dos serviços públicos.

SECÇÃO 14: Informações relativas ao transporte

- | | |
|---|--|
| · 14.5 Perigos para o ambiente: | Não aplicável. |
| · 14.6 Precauções especiais para o utilizador | Não aplicável. |
| · Stowage Category | A |
| · 14.7 Transporte a granel em conformidade com o anexo II da Convenção MARPOL e o Código IBC | Não aplicável. |
| · Transporte/outras informações: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 kg |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| · UN "Model Regulation": | não aplicável |

PT

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SECÇÃO 15: Informação sobre regulamentação

· **15.1 Regulamentação/legislação específica para a substância ou mistura em matéria de saúde, segurança e ambiente**

· **Directiva 2012/18/UE**

· **Substâncias perigosas designadas - ANEXO I Nenhum dos componentes se encontra listado.**

· **Directiva 2011/65/UE relativa à restrição do uso de determinadas substâncias perigosas em equipamentos eléctricos e electrónicos - Anexo II**

Nenhum dos componentes se encontra listado.

· **15.2 Avaliação da segurança química: Não foi realizada nenhuma Avaliação de Segurança Química.**

SECÇÃO 16: Outras informações

As informações fornecidas baseiam-se no estado actual dos nossos conhecimentos, embora não representem uma garantia das propriedades do produto e não fundamentam uma relação contratual.

· **Frases relevantes**

H302 Nocivo por ingestão.

H315 Provoca irritação cutânea.

H317 Pode provocar uma reacção alérgica cutânea.

H318 Provoca lesões oculares graves.

H334 Quando inalado, pode provocar sintomas de alergia ou de asma ou dificuldades respiratórias.

H335 Pode provocar irritação das vias respiratórias.

· **Abreviaturas e acrónimos:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Toxicidade aguda - via oral – Categoria 4

Skin Irrit. 2: Corrosão/irritação cutânea – Categoria 2

Eye Dam. 1: Lesões oculares graves/irritação ocular – Categoria 1

Eye Irrit. 2: Lesões oculares graves/irritação ocular – Categoria 2

Resp. Sens. 1: Sensibilização respiratória – Categoria 1

Skin Sens. 1: Sensibilização cutânea – Categoria 1

STOT SE 3: Toxicidade para órgãos-alvo específicos (exposição única) – Categoria 3

**Паспорт безопасности
в соответствии с ГОСТ 30333-2007**

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1 Идентификация химической продукции и сведения о производителе или поставщике

- **Идентификатор продукта**
- **Торговое наименование:** Crystalbond 509
- **Артикульный номер:** 50400-01, 50400-05, 50400-55, 50400-50
- **Соответствующие установленные применения вещества или смеси и не рекомендуемые области использования**
Отсутствует какая-либо соответствующая информация.
- **Применение вещества / препарата** Лабораторные химикаты
- **Подробная информация поставщика паспорта безопасности**
- **Производитель / Поставщик:**
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
- **Отдел, предоставляющий информацию:** Product safety department
- **Номер телефона экстренной связи:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Идентификация опасности (опасностей)

- **Классификация вещества или смеси**



Раздражение кожи 2 H315 Вызывает раздражение кожи.

Острая токсичность H303 Может нанести вред при проглатывании.

5

Раздражение глаз 2B H320 Вызывает раздражение глаз.

- **Элементы маркировки**
- **Элементы маркировки в соответствии с СГС**
Данный продукт классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).
- **Пиктограммы, обозначающие опасности**



GHS07

- **Сигнальное слово** Осторожно
- **Компоненты этикетки, указывающие на опасность:**
phthalic anhydride
ethanediol
- **Предупреждения об опасности**
Может нанести вред при проглатывании.
Вызывает раздражение кожи и глаз

(Продолжение на странице 2)

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(Продолжение страницы 1)

· Меры предосторожности

Пользоваться защитными перчатками.

ПРИ ПОПАДАНИИ В ГЛАЗА: Осторожно промыть глаза водой в течение нескольких минут. Снять контактные линзы, если вы пользуетесь ими и если это легко сделать. Продолжить промывание глаз.

Обратиться в ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/ к врачу при плохом самочувствии.

Применение специальных мер (см. на этом маркировочном знаке).

Снять загрязненную одежду и промыть ее перед повторным использованием.

При раздражении кожи: обратиться к врачу.

· Другие опасные факторы

· Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)

· **PBT:** Неприменимо.





· **vPvB:** Неприменимо.

3 Состав (информация о компонентах)

· **Химическая характеристика: Смеси**

· **Описание:** Смесь из веществ, перечисленных ниже, с неопасными добавками.

· **Содержащиеся опасные вещества:**

| | | |
|----------|---|-----------|
| 85-44-9 | phthalic anhydride  Респираторная синсбилизация 1, H334;  Повреждение глаз 1, H318;  Острая токсичность 4, H302; Раздражение кожи 2, H315; Кожная сенсбилизация 1, H317; СТОМ - однократно 3, H335 | >50-≤100% |
| 107-21-1 | ethanediol  Острая токсичность 4, H302 | >25-≤50% |

· **Дополнительные указания:** Текст приведённых указаний на факторы риска см. в Главе 16.

4 Меры первой помощи

· **Описание мер первой медицинской помощи**

· **Общие указания:**

Симптомы отравления могут проявиться даже спустя много часов, поэтому имеется необходимость в медицинском надзоре в течение как минимум 48 часов после аварии (несчастного случая).

· **После вдыхания:**

При потере сознания (обморочном состоянии) положить пациента на бок в стабильном положении для транспортировки.

· **После контакта с кожей:** Немедленно промыть с помощью воды и мыла, хорошо сполоснуть.

· **После контакта с глазами:**

Промойте открытый глаз под проточной водой в течение нескольких минут. При сохранении симптомов обратитесь к врачу.

· **После проглатывания:** Немедленно вызвать врача.

· **Указания для врача:**

· **Наиболее важные симптомы и эффекты, как немедленные, так и проявляющиеся впоследствии**

Отсутствует какая-либо соответствующая информация.

· **Указание на необходимость оперативной медицинской помощи и специального режима**

Отсутствует какая-либо соответствующая информация.

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(Продолжение на странице 3)

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5 Меры и средства обеспечения пожаровзрывобезопасности

- Средства пожаротушения
- **Надлежащие средства тушения:**
Предпринять меры по тушению пожара, соответствующие окружающим условиям.
- **Особые опасности, создаваемые веществом или смесью**
Отсутствует какая-либо соответствующая информация.
- **Рекомендации для пожарных**
- **Защитное оснащение:** Нет необходимости в каких-либо специальных мерах.

6 Меры по предотвращению и ликвидации аварийных и чрезвычайных ситуаций и их последствий

- **Меры по обеспечению личной безопасности, защитное снаряжение и порядок действий в чрезвычайной ситуации**
Не требуется.
- **Меры по защите окружающей среды:**
Не допускать попадания в канализационную систему / поверхностные или грунтовые воды.
- **Методы и материалы для локализации и очистки:**
Утилизировать заражённый материал как отходы в соответствии с Пунктом 13.
- **Ссылки на другие разделы**
Информация по безопасному обращению - в Главе 7.
Информация по индивидуальному защитному снаряжению - в Главе 8.
Информация по утилизации - в Главе 13.

7 Правила хранения химической продукции и обращения с ней при погрузочно-разгрузочных работах

- **Обращение с веществом:**
- **Меры предосторожности по безопасному обращению**
При надлежащем применении нет необходимости в каких-либо специальных мерах предосторожности.
- **Указания по защите от пожаров и взрывов:** Нет необходимости в каких-либо специальных мерах.
- **Условия безопасного хранения, включая несовместимости**
- **Хранение:**
- **Требования, предъявляемые к складским помещениям и таре:**
Никаких особенных требований не предъявляется.
- **Указания по совместимости с другими веществами при хранении:** Не требуется.
- **Дальнейшие данные по условиям хранения:** Держать ёмкости плотно закрытыми.
- **Характерное конечное применение (или применения)**
Отсутствует какая-либо соответствующая информация.

8 Средства контроля за опасным воздействием и средства индивидуальной защиты

- **Дополнительные указания по структуре технических устройств:**
Никаких дополнительных данных; см. Пункт 7.

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· Параметры контроля

· Составляющие компоненты с предельными значениями, требующие мониторинга на рабочих местах:

85-44-9 phthalic anhydride

PDK ПДК с.с.: 1 мг/м³
n+a; +;

107-21-1 ethanediol

PDK ПДК с.с.: 5 мг/м³
ПДК м.р.: 10 мг/м³
n+a;

· Дополнительные указания:

В качестве основы послужили списки, являвшиеся на момент составления актуальными.

· Требования по охране труда и меры по обеспечению безопасности персонала

· Средства индивидуальной защиты:

· Общие меры по защите от воздействия и гигиене:

Держать подальше от продуктов питания, напитков и корма для животных.

Немедленно снять всю загрязнённую и пропитанную вредными веществами одежду.

Мыть руки перед перерывами и по окончании работы.

Избегать контакта с глазами и с кожей.

· Защита органов дыхания: Не требуется.

· Защита рук:



Защитные перчатки (рукавицы).

Материал перчаток / рукавиц должен быть устойчивым к воздействию продукта / вещества / препарата и не пропускать их.

Никаких рекомендаций в отношении материала перчаток / рукавиц, пригодных для применения в ходе работы с продуктом / препаратом / смесью химикатов дать нельзя, так как никаких испытаний в этом отношении не проводилось.

Выбор материала перчаток / рукавиц производится с учётом времени прорыва, степени проницаемости и эрозии.

· Материал перчаток / рукавиц

Выбор подходящих перчаток / рукавиц определяется не только материалом, но также и другими качественными особенностями, причём между различными производителями существует большая разница. Так как продукт представляет собой смесь различных веществ, то не представляется никакой возможности для расчёта устойчивости материала, из которого изготовлены перчатки / рукавицы, что вызывает необходимость перепроверки на предмет пригодности перед использованием.

· Период проницаемости материала перчаток / рукавиц.

Необходимо осведомиться у производителя защитных перчаток / рукавиц о точном времени прорыва и придерживаться его.

· Защита глаз:



Плотно прилегающие защитные очки

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9 Физико-химические свойства

· Информация по основным физическим и химическим свойствам

· Общая информация

· Внешний вид:

· Форма:

Твёрдое

· Цвет:

Янтарного цвета

· Запах:

Без запаха

· Порог запаха:

Не определено.

· Значение pH:

Неприменимо.

· Изменение состояния

· Точка плавления / интервал температур

плавления:

68,3 °C

· Точка кипения / интервал температур кипения:

>100 °C

· Температурная точка вспышки:

>263 °C

· Воспламеняемость (твёрдое, газообразное вещество):

Не определено.

· Температура воспламенения:

410 °C

· Температура распада:

Не определено.

· Самовоспламеняемость:

Продукт не является самовоспламеняемым.

· Взрывоопасность:

Продукт не является взрывоопасным.

· Границы взрываемости:

· Нижняя:

1,7 пол. %

· Верхняя:

53 пол. %

· Давление пара при 20 °C:

0,1 гаПа

· Плотность при 20 °C:

1,31 г/см³

· Относительная плотность

Не определено.

· Плотность пара

Неприменимо.

· Скорость испарения

Неприменимо.

· Растворимость в / Смешиваемость с

· водой:

Нерастворимо.

· Коэффициент распределения (n-октанол / вода):

Не определено.

· Вязкость:

· Динамическая:

Неприменимо.

· Кинематическая:

Неприменимо.

· Содержание растворителя:

· Содержание твёрдых тел:

78,0 %

· Другая информация

Отсутствует какая-либо соответствующая информация.

10 Стабильность и реакционная способность

· Реакционная способность Отсутствует какая-либо соответствующая информация.

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- **Химическая стабильность**
- **Термический распад / условия, которых следует избегать:**
При использовании в соответствии с предписаниями не происходит никакого распада.
- **Возможность опасных реакций** Неизвестно ни о каких опасных реакциях.
- **Условия, вызывающие опасные изменения** Отсутствует какая-либо соответствующая информация.
- **Несовместимые материалы:** Отсутствует какая-либо соответствующая информация.
- **Опасные продукты распада:** Неизвестно ни о каких опасных продуктах распада.

11 Информация о токсичности

- **Информация по токсикологическому воздействию**
- **Острая токсичность:**

· **Значения LD/LC50 (летальной дозы/концентрации), необходимые для классифицирования:**

85-44-9 phthalic anhydride

| | | |
|---------------------|------|-------------------|
| Орально (через рот) | LD50 | 4.200 мг/кг (rat) |
|---------------------|------|-------------------|

107-21-1 ethanediol

| | | |
|------------------------|------|----------------------|
| Орально (через рот) | LD50 | 5.840 мг/кг (rat) |
| Дермально (через кожу) | LD50 | 9.530 мг/кг (rabbit) |

- **Первичное раздражающее воздействие:**
- **на кожу:** Раздражает кожу и слизистые оболочки.
- **на глаза:** Раздражающее воздействие.
- **Сенсибилизация:** Неизвестно о наличии сенсибилизирующего воздействия.
- **Дополнительные токсикологические указания:**
На основании расчётного метода Всеобщей Классификационной Директивы ЕС для Препаратов в её последней (актуальной) редакции продукт представляет следующие виды опасности:
Вредно для здоровья
Раздражающе

12 Информация о воздействии на окружающую среду

- **Токсичность**
- **Акватоксичность:** Отсутствует какая-либо соответствующая информация.
- **Стойкость и склонность к деградации** Отсутствует какая-либо соответствующая информация.
- **Поведение в экологических системах:**
- **Биоаккумулятивный потенциал** Отсутствует какая-либо соответствующая информация.
- **Подвижность в грунте** Отсутствует какая-либо соответствующая информация.
- **Дополнительные экологические указания:**
- **Общие указания:**
Класс вредности для воды 1 (Само-классификация): немного вредно для воды
Не допускать попадания продукта в грунтовые воды, водоёмы или в канализационную систему в неразбавленном виде или в больших количествах.
- **Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **PBT:** Неприменимо.
- **vPvB:** Неприменимо.
- **Другие вредные эффекты** Отсутствует какая-либо соответствующая информация.

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13 Рекомендации по удалению отходов (остатков)

- **Методы обработки отходов**
- **Рекомендация:**
Утилизация совместно с бытовыми отходами недопустима. Не допускать попадания в канализацию.
- **Неочищенные упаковки:**
- **Рекомендация:**
Утилизация должна быть осуществлена в соответствии с предписаниями компетентных служб.

14 Информация при перевозках (транспортировании)

| | |
|--|--|
| · Экологические риски: | Неприменимо. |
| · Особые меры предосторожности для пользователей | Неприменимо. |
| · Stowage Category | A |
| · Транспортировка навалом в соответствии с Приложением II MARPOL73/78 (Международная конвенция по предотвращению загрязнения вод с судов) и IBC Code (Международный кодекс перевозок опасных химических грузов наливом) | Неприменимо. |
| · Транспорт / дополнительная информация: | |
| · IMDG | |
| · Limited quantities (LQ) | 5 кг |
| · Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30 г Maximum net quantity per outer packaging: 1000 г |
| · UN "Model Regulation": | отпадает |

15 Информация о национальном и международном законодательстве

- **Нормы безопасности, правила охраны труда и экологические нормативы или стандарты, действующие для вещества или смеси**
- **Элементы маркировки в соответствии с СГС**
Данный продукт классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).
- **Пиктограммы, обозначающие опасности**



GHS07

- **Сигнальное слово** *Осторожно*
- **Компоненты этикетки, указывающие на опасность:**
phthalic anhydride
ethanediol

(Продолжение на странице 8)

Паспорт безопасности в соответствии с ГОСТ 30333-2007

Дата печати: 14.10.2021

Дата редактирования: 14.10.2021

Торговое наименование: Crystalbond 509

(Продолжение страницы 7)

· **Предупреждения об опасности**

Может нанести вред при проглатывании.

Вызывает раздражение кожи и глаз

· **Меры предосторожности**

Пользоваться защитными перчатками.

ПРИ ПОПАДАНИИ В ГЛАЗА: Осторожно промыть глаза водой в течение нескольких минут. Снять контактные линзы, если вы пользуетесь ими и если это легко сделать. Продолжить промывание глаз.

Обратиться в ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/ к врачу при плохом самочувствии.

Применение специальных мер (см. на этом маркировочном знаке).

Снять загрязненную одежду и промыть ее перед повторным использованием.

При раздражении кожи: обратиться к врачу.

· **Оценка химической безопасности:** Оценка химической безопасности не проведена.

16 Дополнительная информация

Данные опираются на актуальные знания, однако они не являются гарантией каких-либо конкретных свойств продукта и не устанавливают никаких действующих с юридической точки зрения договорных отношений.

· **Соответствующие данные**

H302 Вредно при проглатывании.

H315 Вызывает раздражение кожи.

H317 Может вызывать аллергическую кожную реакцию.

H318 Вызывает серьезные повреждения глаз.

H334 При вдыхании может вызывать аллергические или астматические симптомы или затруднение дыхания.

H335 Может вызывать раздражение дыхательных путей.

· **Аббревиатуры и акронимы:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Острая токсичность 4: Acute toxicity – Category 4

Острая токсичность 5: Acute toxicity – Category 5

Раздражение кожи 2: Skin corrosion/irritation – Category 2

Повреждение глаз 1: Serious eye damage/eye irritation – Category 1

Раздражение глаз 2B: Serious eye damage/eye irritation – Category 2B

Респираторная сенсибилизация 1: Respiratory sensitisation – Category 1

Кожная сенсибилизация 1: Skin sensitisation – Category 1

СТОМ - однократно 3: Specific target organ toxicity (single exposure) – Category 3

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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:** Crystalbond 509
- **Número del artículo:** 50400-01, 50400-05, 50400-55, 50400-50
- **UFI:** R5Q0-R0UG-2008-G3Y1
- **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**



GHS07

- Skin Irrit. 2 H315 Provoca irritación cutánea.
- Eye Irrit. 2 H319 Provoca irritación ocular grave.

- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**
El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
- **Pictogramas de peligro**



GHS07

- **Palabra de advertencia** Atención
- **Componentes peligrosos a indicar en el etiquetaje:**
anhídrido ftálico

(se continua en página 2)

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· Indicaciones de peligro

H315 Provoca irritación cutánea.

H319 Provoca irritación ocular grave.

· Consejos de prudencia

P264 Lavarse concienzudamente tras la manipulación.

P280 Llevar guantes de protección / gafas de protección / máscara de protección.

P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

P332+P313 En caso de irritación cutánea: Consultar a un médico.

P362+P364 Quitar las prendas contaminadas y lavarlas antes de volver a usarlas.

P337+P313 Si persiste la irritación ocular: Consultar a un médico.

· Datos adicionales:

Contiene anhídrido ftálico. Puede provocar una reacción alérgica.

· 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: 85-44-9 EINECS: 201-607-5 | anhídrido ftálico ⚠ Resp. Sens. 1, H334; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335 | >50-≤100% |
| CAS: 107-21-1 EINECS: 203-473-3 | etanodiol ⚠ Acute Tox. 4, H302 | >25-≤50% |

· **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

· Instrucciones generales:

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

· En caso de inhalación del producto:

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

· **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.

· En caso de con los ojos:

Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.

· **En caso de ingestión:** Consultar inmediatamente un médico.· **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.

ES

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SECCIÓN 5: Medidas de lucha contra incendios

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

SECCIÓN 6: Medidas en caso de vertido accidental

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

SECCIÓN 7: Manipulación y almacenamiento

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

SECCIÓN 8: Controles de exposición/protección individual

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

8.1 Parámetros de control

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

85-44-9 anhídrido ftálico

| | |
|-----|--|
| LEP | Valor de larga duración: 6 mg/m ³ , 1 ppm |
| | Sen |

107-21-1 etanodiol

| | |
|-----|---|
| LEP | Valor de corta duración: 104 mg/m ³ , 40 ppm |
| | Valor de larga duración: 52 mg/m ³ , 20 ppm |
| | vía dérmica, VLI |

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

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- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
Mantener alejado de alimentos, bebidas y alimentos para animales.
Quitarse de inmediato la ropa ensuciada o impregnada.
Lavarse las manos antes de las pausas y al final del trabajo.
Evitar el contacto con los ojos y la piel.
- **Protección respiratoria:** No es necesario.
- **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.
Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.
Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

- **Material de los guantes**
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.
- **Tiempo de penetración del material de los guantes**
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.
- **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**
- **Datos generales**
- **Aspecto:**
- **Forma:** Sólido
- **Color:** Ámbar coloreado
- **Olor:** Inodoro
- **Umbral olfativo:** No determinado.
- **valor pH:** No aplicable.
- **Cambio de estado**
- **Punto de fusión/punto de congelación:** 68,3 °C
- **Punto inicial de ebullición e intervalo de ebullición:** >100 °C
- **Punto de inflamación:** >263 °C
- **Inflamabilidad (sólido, gas):** No determinado.
- **Temperatura de ignición:** 410 °C

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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. |
| · Límites de explosión: | |
| · Inferior: | 1,7 Vol % |
| · Superior: | 53 Vol % |
| · Presión de vapor a 20 °C: | 0,1 hPa |
| · Densidad a 20 °C: | 1,31 g/cm ³ |
| · Densidad relativa | No determinado. |
| · Densidad de vapor | No aplicable. |
| · Tasa de evaporación: | No aplicable. |
| · Solubilidad en / miscibilidad con | |
| · agua: | Insoluble. |
| · Coeficiente de reparto: n-octanol/agua: | No determinado. |
| · Viscosidad: | |
| · Dinámica: | No aplicable. |
| · Cinemática: | No aplicable. |
| · Concentración del disolvente: | |
| · Contenido de cuerpos sólidos: | 78,0 % |
| · 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.

· **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

85-44-9 anhídrido ftálico

| | | |
|------|------|-------------------|
| Oral | LD50 | 4.200 mg/kg (rat) |
|------|------|-------------------|

107-21-1 etanodiol

| | | |
|------|------|-------------------|
| Oral | LD50 | 5.840 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--------|------|----------------------|
| Dermal | LD50 | 9.530 mg/kg (rabbit) |
|--------|------|----------------------|

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca irritación cutánea.

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- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **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 (autoclasiación): 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 | A |
| · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC | No aplicable. |

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· **Transporte/datos adicionales:**

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

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

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

· **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

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

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

· **Frases relevantes**

H302 Nocivo en caso de ingestión.

H315 Provoca irritación cutánea.

H317 Puede provocar una reacción alérgica en la piel.

H318 Provoca lesiones oculares graves.

H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.

H335 Puede irritar las vías respiratorias.

· **Abreviaturas y acrónimos:**

IMDG: International Maritime Code for Dangerous Goods

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Toxicidad aguda - oral - Categoría 4

Skin Irrit. 2: Corrosión o irritación cutáneas - Categoría 2

Eye Dam. 1: Lesiones oculares graves o irritación ocular - Categoría 1

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

Resp. Sens. 1: Sensibilización respiratoria - Categoría 1

Skin Sens. 1: Sensibilización cutánea - Categoría 1

STOT SE 3: Toxicidad específica en determinados órganos (exposición única) - Categoría 3