

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2020

Reviewed on 06/03/2020

1 Identification

- **Product identifier**
- **Trade name:** Beryllium Planchets
- **Article number:** 76010, 76014, 76015, 76016, 76017
- **CAS Number:**
7440-41-7
- **EC number:**
231-150-7
- **Index number:**
004-001-00-7
- **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**



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Carc. 1B H350 May cause cancer.

STOT RE 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

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

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· **Hazard pictograms**

GHS06 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***beryllium*· **Hazard statements***Toxic if swallowed.**Fatal if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**May cause cancer.**May cause respiratory irritation.**Causes damage to the respiratory system through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapors/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing must not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**Rinse mouth.**If on skin: Wash with plenty of water.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Wash contaminated clothing before reuse.**Store in a well-ventilated place. Keep container tightly closed.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)***Health = 4**Fire = 0**Reactivity = 0*

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

HEALTH	*4	Health = *4
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
7440-41-7 beryllium
- **Identification number(s)**
- **EC number:** 231-150-7
- **Index number:** 004-001-00-7

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **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:** Mouth respiratory protective device.

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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.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:	
	0.0023 mg/m ³

· PAC-2:	
	0.025 mg/m ³

· PAC-3:	
	0.1 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **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:	
7440-41-7 beryllium	
PEL	Short-term value: 0.002 mg/m ³ Long-term value: 0.0002; 0.002* mg/m ³ Ceiling limit value: 0.025*/** mg/m ³ , 0.005* ppm as Be; *see 1910.1024; **30 min peak/8-hr shift
REL	Ceiling limit value: 0.0005 mg/m ³ as Be; See Pocket Guide App. A
TLV	Long-term value: 0.00005 mg/m ³ as Be; inhalable; RSEN; soluble comp.: Skin, DSEN

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Powder

Color: Not determined.

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range: 1,278 °C (34.378 °F)

Boiling point/Boiling range: 2,970 °C (37.370 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

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· Decomposition temperature:	<i>Not determined.</i>
· Auto igniting:	<i>Not determined.</i>
· Danger of explosion:	<i>Product does not present an explosion hazard.</i>
· Explosion limits:	
Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>
· Vapor pressure at 990 °C (1,814 °F):	<i>0.000133 hPa (0 mm Hg)</i>
· Density at 20 °C (68 °F):	<i>1.85 g/cm³ (15.43825 lbs/gal)</i>
· Relative density	<i>Not determined.</i>
· Vapor density	<i>Not applicable.</i>
· Evaporation rate	<i>Not applicable.</i>
· Solubility in / Miscibility with Water:	<i>Insoluble.</i>
· Partition coefficient (n-octanol/water):	<i>Not determined.</i>
· Viscosity:	
Dynamic:	<i>Not applicable.</i>
Kinematic:	<i>Not applicable.</i>
VOC content:	<i>0.00 %</i>
Solids content:	<i>100.0 %</i>
· Other information	<i>No further relevant information available.</i>

10 Stability and reactivity

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** *Irritant to skin and mucous membranes.*
- **on the eye:** *Irritating effect.*
- **Sensitization:** *Sensitization possible through skin contact.*
- **Additional toxicological information:**
- **Carcinogenic categories**

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

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· *NTP (National Toxicology Program)*

K

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

Substance is not 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 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p>UN1567</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG, IATA | <p>Beryllium, powder
1567 BERYLLIUM POWDER
BERYLLIUM POWDER</p> |

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

6.1 Toxic substances

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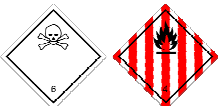
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· **Label** 6.1, 4.1

· **ADR**



· **Class** 6.1 Toxic substances
 · **Label** 6.1+4.1

· **IMDG**



· **Class** 6.1 Toxic substances
 · **Label** 6.1/4.1

· **IATA**



· **Class** 6.1 Toxic substances
 · **Label** 6.1 (4.1)

· **Packing group**
 · **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Toxic substances
 · **Hazard identification number (Kemler code):** 64
 · **EMS Number:** 6.1-03
 · **Stowage Category** A
 · **Handling Code** H1 Keep as dry as reasonably practicable
 · **Segregation Code** SG25 Stow "separated from" goods of classes 2.1 and 3.
 SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.

· **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: 15 kg
 On cargo aircraft only: 50 kg
 · **Hazardous substance:** 10 lbs, 4.54 kg

· **ADR**
 · **Excepted quantities (EQ)** Code: E4
 Maximum net quantity per inner packaging: 1 g
 Maximum net quantity per outer packaging: 500 g

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- | | |
|-----------------------------------|---|
| · IMDG | |
| · Limited quantities (LQ) | 500 g |
| · Excepted quantities (EQ) | Code: E4 |
| | Maximum net quantity per inner packaging: 1 g |
| | Maximum net quantity per outer packaging: 500 g |
| · UN "Model Regulation": | UN 1567 BERYLLIUM POWDER, 6.1 (4.1), II |

15 Regulatory information

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

· Section 355 (extremely hazardous substances):
--

Substance is not listed.

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

Substance is listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

· Hazardous Air Pollutants

Substance is not listed.

· Proposition 65

· Chemicals known to cause cancer:

Substance is listed.

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

Substance is not listed.

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

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)
--

B1, K/L(inh), CBD(oral)

· TLV (Threshold Limit Value established by ACGIH)

AI

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

Substance is listed.

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

- **Hazard pictograms**



GHS06 GHS07 GHS08

- **Signal word** *Danger*

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Trade name: Beryllium Planchets

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

beryllium

· **Hazard statements**

Toxic if swallowed.

Fatal if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to the respiratory system through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: Immediately call a poison center/doctor.

Rinse mouth.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Specific treatment is urgent (see on this label).

Take off contaminated clothing and wash it before reuse.

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

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· **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** 06/03/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
*OSHA: Occupational Safety **Health***
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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Safety Data Sheet

according to WHS Regulations

Printing date 03.06.2020

Revision: 03.06.2020

1 Identification

· **Product identifier**

· **Trade name:** Beryllium Planchets

· **Article number:** 76010, 76014, 76015, 76016, 76017

· **CAS Number:**

7440-41-7

· **EC number:**

231-150-7

· **Index number:**

004-001-00-7

· **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**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Carc. 1B H350 May cause cancer.

STOT RE 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure.

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GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

· **Label elements**

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS06

GHS07

GHS08

· **Signal word** *Danger*

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

beryllium

· **Hazard statements**

Toxic if swallowed.

Fatal if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to the respiratory system through prolonged or repeated exposure.

· **Precautionary statements**

Obtain special instructions before use.

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

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

Wear respiratory protection.

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

Rinse mouth.

IF ON SKIN: Wash with plenty of water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Call a POISON CENTER/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

Specific treatment is urgent (see on this label).

Take off contaminated clothing and wash it before reuse.

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

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- If eye irritation persists: Get medical advice/attention.*
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
7440-41-7 beryllium
- **Identification number(s)**
- **EC number:** 231-150-7
- **Index number:** 004-001-00-7

4 First Aid Measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** *Do not induce vomiting; call for medical help 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:** *Mouth respiratory protective device.*

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.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **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:**

7440-41-7 beryllium

WES	Long-term value: 0.002 mg/m ³ Note (g); as Be
-----	---

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

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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.

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

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

- **General Information**

- **Appearance:**

Form: Powder

Colour: Not determined.

- **Odour:** Odourless

- **Odour threshold:** Not determined.

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

- **Change in condition**

Melting point/freezing point: 1,278 °C

Initial boiling point and boiling range: 2,970 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Product is not flammable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Not determined.

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

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapour pressure at 990 °C:** 0.000133 hPa

- **Density at 20 °C:** 1.85 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.
· Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

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

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Carc. 1B

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

AU

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Trade name: *Beryllium Planchets*

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13 Disposal considerations

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

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	<p style="text-align: right;">UN1567</p>
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG, IATA 	<p style="text-align: right;">1567 BERYLLIUM POWDER BERYLLIUM POWDER</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · ADG 	<div style="display: flex; align-items: center; justify-content: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p style="text-align: right;">6.1 Toxic substances. 6.1+4.1</p>
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; align-items: center; justify-content: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p style="text-align: right;">6.1 Toxic substances. 6.1/4.1</p>
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; justify-content: center;">   </div>
<ul style="list-style-type: none"> · Class · Label 	<p style="text-align: right;">6.1 Toxic substances. 6.1 (4.1)</p>
<ul style="list-style-type: none"> · Packing group · ADG, IMDG, IATA 	<p style="text-align: right;">II</p>
<ul style="list-style-type: none"> · Environmental hazards: 	<p style="text-align: right;">Not applicable.</p>
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Handling Code · Segregation Code 	<p style="text-align: right;">Warning: Toxic substances. 64 6.1-03 A H1 Keep as dry as reasonably practicable SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when</p>

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	stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1567 BERYLLIUM POWDER, 6.1 (4.1), II

15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

Substance is listed.

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

S6

· **Australia: Priority Existing Chemicals**

Substance is not listed.

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS06 GHS07 GHS08

· **Signal word** *Danger*

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

beryllium

· **Hazard statements**

Toxic if swallowed.

Fatal if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

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*May cause cancer.**May cause respiratory irritation.**Causes damage to the respiratory system through prolonged or repeated exposure.***· Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**Wear respiratory protection.**IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**Rinse mouth.**IF ON SKIN: Wash with plenty of water.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a POISON CENTER/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Wash contaminated clothing before reuse.**Store in a well-ventilated place. Keep container tightly closed.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Directive 2012/18/EU****· Named dangerous substances - ANNEX I Substance is not listed.****· Seveso category H2 ACUTE TOXIC****· Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t****· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t****· National regulations:****· Information about limitation of use:***Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.***· Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.***16 Other information***This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.***· Abbreviations and acronyms:***ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**PBT: Persistent, Bioaccumulative and Toxic*

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Trade name: Beryllium Planchets

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vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity - oral – Category 3
Acute Tox. 2: Acute toxicity - inhalation – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

-AU-

Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 06/03/2020

1 Identification

- **Product identifier**
- **Trade name:** Beryllium Planchets
- **Article number:** 76010, 76014, 76015, 76016, 76017
- **CAS Number:**
7440-41-7
- **EC number:**
231-150-7
- **Index number:**
004-001-00-7
- **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**



GHS06 Skull and crossbones

Acute Toxicity (Oral) - Category 3

H301 Toxic if swallowed.

Acute Toxicity (Inhalation) - Category 2

H330 Fatal if inhaled.



GHS08 Health hazard

Carcinogenicity - Category 1B

H350 May cause cancer.

Specific Target Organ Toxicity - Repeated Exposure -
Category 1H372 Causes damage to the respiratory system
through prolonged or repeated exposure.

GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H335 May cause respiratory irritation.

- **Label elements**

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

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Trade name: **Beryllium Planchets**

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· **Hazard pictograms**

GHS06 GHS07 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labeling:***beryllium*· **Hazard statements***Toxic if swallowed.**Fatal if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**May cause cancer.**May cause respiratory irritation.**Causes damage to the respiratory system through prolonged or repeated exposure.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**Rinse mouth.**If on skin: Wash with plenty of water.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Store in a well-ventilated place. Keep container tightly closed.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)***Health = 4**Fire = 0**Reactivity = 0*

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Trade name: **Beryllium Planchets**

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	*4	Health = *4
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

3 Composition/Information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
7440-41-7 beryllium
- **Identification number(s)**
- **EC number: 231-150-7**
- **Index number: 004-001-00-7**

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **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:** Mouth respiratory protective device.

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.

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Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

- **Information about protection against explosions and fires:** Keep respiratory protective device available.

- **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:**

7440-41-7 beryllium

EL	TWA: 0.00005 mg/m ³ as Be; ACGIH A1, IARC 1; Skin, S(R); soluble: S(D)
EV	STEL: 0.01 mg/m ³ TWA: 0.002 mg/m ³ as Be; revoked as of 01/01/18

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

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

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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.

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Powder

Color: Not determined.

- **Odor:** Odorless

- **Odor threshold:** Not determined.

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

- **Change in condition**

Melting point/Melting range: 1,278 °C

Boiling point/Boiling range: 2,970 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

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

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapor pressure at 990 °C:** 0.000133 hPa

- **Density at 20 °C:** 1.85 g/cm³

- **Relative density:** Not determined.

- **Vapor density:** Not applicable.

- **Evaporation rate:** Not applicable.

- **Solubility in / Miscibility with**

Water: Insoluble.

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

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Trade name: **Beryllium Planchets**

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· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)	
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· NTP (National Toxicology Program)	
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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Water hazard class 3 (Self-assessment): extremely hazardous for water
- Do not allow product to reach ground water, water course or sewage system, even in small quantities.
- Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Trade name: *Beryllium Planchets*

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

13 Disposal considerations

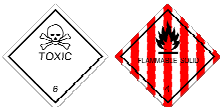
- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

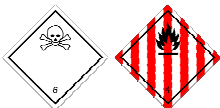
· **UN-Number**
· **DOT/TDG, ADR, IMDG, IATA** UN1567

· **UN proper shipping name**
· **DOT/TDG** *Beryllium, powder*
· **ADR** *1567 BERYLLIUM POWDER*
· **IMDG, IATA** *BERYLLIUM POWDER*

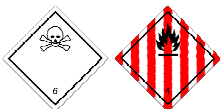
· **Transport hazard class(es)**
· **DOT/TDG (Transport dangerous goods):**



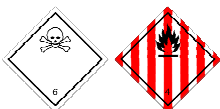
· **Class** *6.1 Toxic substances*
· **Label** *6.1, 4.1*

· **ADR**

· **Class** *6.1 Toxic substances*
· **Label** *6.1+4.1*

· **IMDG**

· **Class** *6.1 Toxic substances*
· **Label** *6.1/4.1*

· **IATA**

· **Class** *6.1 Toxic substances*

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Trade name: **Beryllium Planchets**

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· Label	6.1 (4.1)
· Packing group · DOT/TDG, ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user · Hazard identification number (Kemler code): 64 · EMS Number: · Stowage Category · Handling Code · Segregation Code	Warning: Toxic substances 6.1-03 A H1 Keep as dry as reasonably practicable SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT/TDG · Quantity limitations · Hazardous substance:	On passenger aircraft/rail: 15 kg On cargo aircraft only: 50 kg 10 lbs, 4.54 kg
· ADR · Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	500 g Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1567 BERYLLIUM POWDER, 6.1 (4.1), II

15 Regulatory information

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

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

Substance is not listed.

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

Substance is listed.

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

ACTIVE

· **Canadian substance listings:**

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

Substance is listed.

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CA

Safety Data Sheet

according to HPR, Schedule 1

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Reviewed on 06/03/2020

Trade name: **Beryllium Planchets**

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

Substance is listed.

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

Substance is not listed.

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

· **Hazard pictograms**



GHS06

GHS07

GHS08

· **Signal word** *Danger*

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

beryllium

· **Hazard statements**

*Toxic if swallowed.**Fatal if inhaled.**Causes skin irritation.**Causes serious eye irritation.**May cause an allergic skin reaction.**May cause cancer.**May cause respiratory irritation.**Causes damage to the respiratory system through prolonged or repeated exposure.*

· **Precautionary statements**

*Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**[In case of inadequate ventilation] wear respiratory protection.**If swallowed: Immediately call a poison center/doctor.**Rinse mouth.**If on skin: Wash with plenty of water.**IF INHALED: Remove person to fresh air and keep comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Call a poison center/doctor if you feel unwell.**Get medical advice/attention if you feel unwell.**Specific treatment is urgent (see on this label).**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**Store in a well-ventilated place. Keep container tightly closed.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

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CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 06/03/2020

Reviewed on 06/03/2020

Trade name: Beryllium Planchets

(Contd. of page 9)

- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

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

- **Date of the latest revision of the safety data sheet** 06/03/2020 / -
- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

CA

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

Printing date 03.06.2020

Revision: 03.06.2020

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

· **1.1 Product identifier**

· **Trade name:** Beryllium Planchets

· **Article number:** 76010, 76014, 76015, 76016, 76017

· **CAS Number:**

7440-41-7

· **EC number:**

231-150-7

· **Index number:**

004-001-00-7

· **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**



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Carc. 1B H350i May cause cancer by inhalation.

STOT RE 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

STOT SE 3 H335 May cause respiratory irritation.

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Trade name: **Beryllium Planchets**

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· **2.2 Label elements**· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

GHS06 GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***beryllium*· **Hazard statements***H301 Toxic if swallowed.**H330 Fatal if inhaled.**H315 Causes skin irritation.**H319 Causes serious eye irritation.**H317 May cause an allergic skin reaction.**H350i May cause cancer by inhalation.**H335 May cause respiratory irritation.**H372 Causes damage to the respiratory system through prolonged or repeated exposure.*· **Precautionary statements***P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P330 Rinse mouth.**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P320 Specific treatment is urgent (see on this label).**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**· **CAS No. Description***7440-41-7 beryllium*· **Identification number(s)**· **EC number:** 231-150-7· **Index number:** 004-001-00-7

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Trade name: **Beryllium Planchets**

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SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

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

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

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

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

· After eye contact:

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

· After swallowing: Do not induce vomiting; call for medical help 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: Mouth respiratory protective device.

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.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· Information about fire - and explosion protection: Keep respiratory protective device available.

· 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.

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Trade name: **Beryllium Planchets**

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- **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:**

7440-41-7 beryllium

WEL	Long-term value: 0.002 mg/m ³ as Be; Carc
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **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

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Trade name: *Beryllium Planchets*

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Powder
Colour:	Not determined.
· Odour:	Odourless
· Odour threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/freezing point:	1,278 °C
Initial boiling point and boiling range:	2,970 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Product is not flammable.

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Not determined.

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

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure at 990 °C: 0.000133 hPa

· Density at 20 °C:	1.85 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with water: Insoluble.

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

· Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

Solids content: 100.0 %

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

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- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

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

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

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

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

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA** UN1567

· **14.2 UN proper shipping name**

· **ADR** 1567 BERYLLIUM POWDER
 · **IMDG, IATA** BERYLLIUM POWDER

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 6.1 Toxic substances.
 · **Label** 6.1+4.1

· **IMDG**



· **Class** 6.1 Toxic substances.
 · **Label** 6.1/4.1

· **IATA**



· **Class** 6.1 Toxic substances.
 · **Label** 6.1 (4.1)

· **14.4 Packing group**

· **ADR, IMDG, IATA** II

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user**

· **Hazard identification number (Kemler code):** Warning: Toxic substances.
 · **EMS Number:** 64
 · **Stowage Category** 6.1-03
 · **Handling Code** A
H1 Keep as dry as reasonably practicable

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· Segregation Code	SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1567 BERYLLIUM POWDER, 6.1 (4.1), II

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 Substance is not listed.**
- **Seveso category H2 ACUTE TOXIC**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t**
- **Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t**
- **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 28**
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
- **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

SECTION 16: Other information

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

- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances

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Trade name: Beryllium Planchets

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 3: Acute toxicity - oral – Category 3**Acute Tox. 2: Acute toxicity - inhalation – Category 2**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**Carc. 1B: Carcinogenicity – Category 1B**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1*

GB

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 03.06.2020

Herziening van: 03.06.2020

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

· 1.1 Productidentificatie

· Handelsnaam: Beryllium Planchets

· Artikelnummer: 76010, 76014, 76015, 76016, 76017

· CAS-nummer:

7440-41-7

· EC-nummer:

231-150-7

· Catalogusnummer:

004-001-00-7

· 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



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 3 H301 Giftig bij inslikken.

Acute Tox. 2 H330 Dodelijk bij inademing.



GHS08 gezondheidsgevaar

Carc. 1B H350i Kan kanker veroorzaken bij inademing.

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

(Vervolg op blz. 2)

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Herziening van: 03.06.2020

Handelsnaam: Beryllium Planchets

(Vervolg van blz. 1)



GHS07

- Skin Irrit. 2 H315* Veroorzaakt huidirritatie.
Eye Irrit. 2 H319 Veroorzaakt ernstige oogirritatie.
Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.
STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

· 2.2 Etiketteringselementen

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

De stof product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS06 GHS08

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

beryllium

· Gevarenaanduidingen

- H301* Giftig bij inslikken.
H330 Dodelijk bij inademing.
H315 Veroorzaakt huidirritatie.
H319 Veroorzaakt ernstige oogirritatie.
H317 Kan een allergische huidreactie veroorzaken.
H350i Kan kanker veroorzaken bij inademing.
H335 Kan irritatie van de luchtwegen veroorzaken.
H372 Veroorzaakt schade aan het ademhalingsstelsel bij langdurige of herhaalde blootstelling.

· Veiligheidsaanbevelingen

- P301+P310* NA INSLIKKEN: onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.
P330 De mond spoelen.
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
P320 Specifieke behandeling dringend vereist (zie op dit etiket).
P362+P364 Verontreinigde kleding uittrekken en wassen alvorens deze opnieuw te gebruiken.
P405 Achter slot bewaren.
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen

- **CAS-Nr. omschrijving**
7440-41-7 beryllium

(Vervolg op blz. 3)

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Herziening van: 03.06.2020

Handelsnaam: Beryllium Planchets

(Vervolg van blz. 2)

- **Identificatienummer(s)**
- **EC-nummer:** 231-150-7
- **Catalogusnummer:** 004-001-00-7

RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
- **Algemene informatie:**
Verontreinigde kleding onmiddellijk uittrekken.
Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
Ademhalingstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.
Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.
- **Na het inademen:**
Verse lucht of zuurstof toedienen; deskundige medische hulp inroepen.
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:** Geen braken teweegbrengen en onmiddellijk medische hulp raadplegen.
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

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

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures** Niet nodig.
- **6.2 Milieuvoorzorgsmaatregelen:** Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Goed stofvrij maken.
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

(Vervolg op blz. 4)

Veiligheidsinformatieblad

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- Tanks voorzichtig openen en behandelen.*
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **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:** Vervalt.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
 - Verwijderd houden van eet- en drinkwaren.
 - Verontreinigde kleding onmiddellijk uittrekken.
 - Vóór de pauze en aan het einde van werktijd handen wassen.
 - Beschermende kleding afzonderlijk bewaren.
 - Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
 - Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

- Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.*
- Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliën mengsel afgegeven worden.*
- Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.*
- **Handschoenmateriaal**
 - De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.*
- **Doordringingstijd van het handschoenmateriaal**
 - De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.*
- **Oogbescherming:**



Nauw aansluitende veiligheidsbril

NL

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RUBRIEK 9: Fysische en chemische eigenschappen

· 9.1 Informatie over fysische en chemische basiseigenschappen

· Algemene gegevens

· Voorkomen:

Vorm:	Poeder
Kleur:	Niet bepaald.
Geur:	Reukloos
Geurdrempelwaarde:	Niet bepaald.

· pH-waarde: Niet bruikbaar.

· Toestandsverandering

Smelt-/vriespunt:	1.278 °C
Beginkookpunt en kooktraject:	2.970 °C

· Vlampunt: Niet bruikbaar.

· Ontvlambaarheid (vast, gas): De stof is niet ontvlambaar.

· Ontledingstemperatuur: Niet bepaald.

· Zelfontbrandingstemperatuur: Niet bepaald.

· Ontploffingseigenschappen: Het produkt is niet ontploffingsgevaarlijk.

· Ontploffingsgrenzen:

Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.

· Dampspanning bij 990 °C: 0,000133 hPa

Dichtheid bij 20 °C:	1,85 g/cm ³
Relatieve dichtheid	Niet bepaald.
Dampdichtheid	Niet bruikbaar.
Verdampingssnelheid	Niet bruikbaar.

· Oplosbaarheid in/mengbaarheid met

Water: Niet oplosbaar.

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

· Viscositeit

Dynamisch:	Niet bruikbaar.
Kinematisch:	Niet bruikbaar.

Gehalte aan vaste bestanddelen: 100,0 %

· 9.2 Overige informatie: Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

· 10.1 Reactiviteit: Geen verdere relevante informatie verkrijgbaar.

· 10.2 Chemische stabiliteit

· Thermische afbraak / te vermijden omstandigheden: Geen afbraak bij gebruik volgens voorschrift.

· 10.3 Mogelijke gevaarlijke reacties: Geen gevaarlijke reacties bekend.

· 10.4 Te vermijden omstandigheden: Geen verdere relevante informatie verkrijgbaar.

· 10.5 Chemisch op elkaar inwerkende materialen: Geen verdere relevante informatie verkrijgbaar.

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- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

RUBRIEK 11: Toxicologische informatie

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

RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)
Gevaar voor water klasse 3 (D) (Zelfclassificatie): gevaar voor water groot
Niet lozen in grondwater, oppervlaktewater of riolering, ook niet in kleine hoeveelheden.
Gevaar voor drinkwater zelfs bij het uitlopen van zeer geringe hoeveelheden in de ondergrond.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

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

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

RUBRIEK 14: Informatie met betrekking tot het vervoer

- 14.1 VN-nummer
- ADR, IMDG, IATA

UNI567

- 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN
- ADR
- IMDG, IATA

1567 BERYLLIUMPOEDER

BERYLLIUM POWDER

- 14.3 Transportgevarenklasse(n)

- ADR



- klasse
- Etiket

6.1 Giftige stoffen

6.1+4.1

- IMDG



- Class
- Label

6.1 Giftige stoffen

6.1/4.1

- IATA



- Class
- Label

6.1 Giftige stoffen

6.1 (4.1)

- 14.4 Verpakkingsgroep:

- ADR, IMDG, IATA

II

- 14.5 Milieugevaren:

Niet bruikbaar.

- 14.6 Bijzondere voorzorgen voor de gebruiker

Waarschuwing: Giftige stoffen

- Gevaarsidentificatienummer (Kemler-getal):

64

- EMS-nummer:

6.1-03

- Stowage Category

A

- Handling Code

H1 Keep as dry as reasonably practicable

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· Segregation Code	SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
· 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code	Niet bruikbaar.
· Transport/verdere gegevens:	
· ADR	
· Beperkte hoeveelheden (LQ)	500 g
· Uitzonderde hoeveelheden (EQ)	Code: E4 Grootste netto hoeveelheid per binnenverpakking: 1 g Grootste netto hoeveelheid per buitenverpakking: 500 g
· Vervoerscategorie	2
· Tunnelbeperkingscode	D/E
· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
· VN "Model Regulation":	UN 1567 BERYLLIUMPOEDER, 6.1 (4.1), II

RUBRIEK 15: Regelgeving

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

· **SZW-lijst van kankerverwekkende stoffen**

De stof is aanwezig.

· **SZW-lijst van mutagene stoffen**

De stof is niet aanwezig.

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

De stof is niet aanwezig.

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

De stof is niet aanwezig.

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

De stof is niet aanwezig.

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

De stof is aanwezig.

· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

De stof is niet aanwezig.

· **Richtlijn 2012/18/EU**

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.

· **Seveso-categorie H2 ACUUT TOXISCH**

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

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

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- **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 28
- **Nationale voorschriften:**
- **Aanwijzingen m.b.t. tewerkstellingsbeperking:**
Werknemers mogen aan deze gevaarlijke stof niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.
- **Gevaarklasse v. water:**
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioacumulerend vermogen/ toxiciteit of persistentie)
- **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.

· **Afkortingen en acroniemen:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxiciteit - oraal – Categorie 3

Acute Tox. 2: Acute toxiciteit - inademing – Categorie 2

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

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

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

Carc. 1B: Kankerverwekkendheid – Categorie 1B

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

STOT RE 1: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 1

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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:** Beryllium Planchets

· **Code du produit:** 76010, 76014, 76015, 76016, 76017

· **No CAS:**
7440-41-7

· **Numéro CE:**
231-150-7

· **Numéro index:**
004-001-00-7

· 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**



GHS06 tête de mort sur deux tibias

Acute Tox. 3 H301 Toxique en cas d'ingestion.

Acute Tox. 2 H330 Mortel par inhalation.



GHS08 danger pour la santé

Carc. 1B H350i Peut provoquer le cancer par inhalation.

STOT RE 1 H372 Risque avéré d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.

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

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 H335 Peut irriter les voies respiratoires.

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- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.
- **Pictogrammes de danger**



GHS06 GHS08

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**
béryllium
- **Mentions de danger**
 - H301 Toxique en cas d'ingestion.
 - H330 Mortel par inhalation.
 - H315 Provoque une irritation cutanée.
 - H319 Provoque une sévère irritation des yeux.
 - H317 Peut provoquer une allergie cutanée.
 - H350i Peut provoquer le cancer par inhalation.
 - H335 Peut irriter les voies respiratoires.
 - H372 Risque avéré d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.
- **Conseils de prudence**
 - P301+P310 **EN CAS D'INGESTION:** Appeler immédiatement un CENTRE ANTIPOISON/un médecin.
 - P330 Rincer la bouche.
 - 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.
 - P320 Un traitement spécifique est urgent (voir sur cette étiquette).
 - P362+P364 Enlever les vêtements contaminés et les laver avant réutilisation.
 - P405 Garder sous clef.
 - P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.
- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

- **3.1 Caractérisation chimique: Substances**
- **No CAS Désignation**
7440-41-7 béryllium
- **Code(s) d'identification**
- **Numéro CE:** 231-150-7
- **Numéro index:** 004-001-00-7

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RUBRIQUE 4: Premiers secours

· 4.1 Description des premiers secours

· Remarques générales:

Enlever immédiatement les vêtements contaminés par le produit.

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

Ne retirer la protection respiratoire qu'après avoir retiré les vêtements contaminés.

Respiration artificielle dans le cas d'une respiration irrégulière ou d'un arrêt respiratoire.

· Après inhalation:

Donner de l'air frais ou de l'oxygène; demander d'urgence une assistance médicale.

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: Ne pas faire vomir, demander d'urgence une assistance médicale.

· 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

· Equipement spécial de sécurité: Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

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

· 6.2 Précautions pour la protection de l'environnement:

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

· 6.3 Méthodes et matériel de confinement et de nettoyage:

Evacuer les matériaux contaminés en tant que déchets conformément au point 13.

Assurer une aération suffisante.

· 6.4 Référence à d'autres rubriques

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

· 7.1 Précautions à prendre pour une manipulation sans danger

Bien dépoussiérer.

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

Ouvrir et manipuler les récipients avec précaution.

· Préventions des incendies et des explosions: Tenir des appareils de protection respiratoire prêts.

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

7440-41-7 béryllium

VLEP	Valeur à long terme: 0,002 mg/m ³
CIB	

- **Remarques supplémentaires:**

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

- **8.2 Contrôles de l'exposition**

- **Equipement de protection individuel:**

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

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Conserver à part les vêtements de protection.

Eviter tout contact avec les yeux et avec la peau.

- **Protection respiratoire:**

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

- **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.

À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

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

- **Matériau des gants**

Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

- **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.

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· **Protection des yeux:**

Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

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

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

· **valeur du pH:** Non applicable.· **Changement d'état**

Point de fusion/point de congélation:	1.278 °C
Point initial d'ébullition et intervalle d'ébullition:	2.970 °C

· **Point d'éclair** Non applicable.· **Inflammabilité (solide, gaz):** La substance n'est pas inflammable.· **Température de décomposition:** Non déterminé.· **Température d'auto-inflammabilité:** Non déterminé.· **Propriétés explosives:** Le produit n'est pas explosif.· **Limites d'explosion:**

Inférieure:	Non déterminé.
Supérieure:	Non déterminé.

· **Pression de vapeur à 990 °C:** 0,000133 hPa

Densité à 20 °C:	1,85 g/cm ³
Densité relative	Non déterminé.
Densité de vapeur:	Non applicable.
Taux d'évaporation:	Non applicable.

· **Solubilité dans/miscibilité avec l'eau:** Insoluble· **Coefficient de partage: n-octanol/eau:** Non déterminé.· **Viscosité:**

Dynamique:	Non applicable.
Cinématique:	Non applicable.

Teneur en substances solides:	100,0 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

· **10.1 Réactivité** Pas d'autres informations importantes disponibles.

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

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**
Toxique en cas d'ingestion.
Mortel par inhalation.
- **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**
Peut provoquer une allergie cutanée.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité**
Peut provoquer le cancer par inhalation.
- **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**
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Risque avéré d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 3 (D) (Classification propre): très polluant
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations, même pas en petite quantité.
Danger pour l'eau potable dès fuite d'une quantité minime dans le sous-sol.
- **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.

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RUBRIQUE 13: Considérations relatives à l'élimination

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

RUBRIQUE 14: Informations relatives au transport

<ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA 	<p style="text-align: center;">UN1567</p>
<ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG, IATA 	<p style="text-align: center;">1567 BÉRYLLIUM EN POUDRE BERYLLIUM POWDER</p>
<ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <p style="margin-top: 10px;">· Classe · Étiquette</p> <p style="text-align: right;">6.1 Matières toxiques. 6.1+4.1</p>
<ul style="list-style-type: none"> · IMDG 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <p style="margin-top: 10px;">· Class · Label</p> <p style="text-align: right;">6.1 Matières toxiques. 6.1/4.1</p>
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <p style="margin-top: 10px;">· Class · Label</p> <p style="text-align: right;">6.1 Matières toxiques. 6.1 (4.1)</p>
<ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA 	<p style="text-align: center;">II</p>
<ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: 	<p style="text-align: center;">Non applicable.</p>
<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur · Numéro d'identification du danger (Indice Kemler): · No EMS: · Stowage Category · Handling Code · Segregation Code 	<p style="text-align: center;">Attention: Matières toxiques.</p> <p style="text-align: center;">64</p> <p style="text-align: center;">6.1-03</p> <p style="text-align: center;">A</p> <p style="text-align: center;">H1 Keep as dry as reasonably practicable</p> <p style="text-align: center;">SG25 Stow "separated from" goods of classes 2.1 and 3.</p> <p style="text-align: center;">SG26 In addition: from goods of classes 2.1 and 3 when</p>

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	<i>stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.</i>
· 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC	<i>Non applicable.</i>
· Indications complémentaires de transport:	
· ADR	
· Quantités limitées (LQ)	500 g
· Quantités exceptées (EQ)	Code: E4 <i>Quantité maximale nette par emballage intérieur: 1 g Quantité maximale nette par emballage extérieur: 500 g</i>
· Catégorie de transport	2
· Code de restriction en tunnels	D/E
· IMDG	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4 <i>Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g</i>
· "Règlement type" de l'ONU:	UN 1567 BÉRYLLIUM EN POUDRE, 6.1 (4.1), II

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** la substance n'est pas comprise
- **Catégorie SEVESO H2 TOXICITÉ AIGUË**
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas** 50 t
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut** 200 t
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 28
- **Prescriptions nationales:**
- **Indications sur les restrictions de travail:**
Le personnel ne doit pas être exposé à cette substance dangereuse. Les autorités peuvent autoriser des exceptions dans des cas particuliers.
- **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.

- **Acronymes et abréviations:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic

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*vPvB: very Persistent and very Bioaccumulative**Acute Tox. 3: Toxicité aiguë - voie orale – Catégorie 3**Acute Tox. 2: Toxicité aiguë - inhalation – Catégorie 2**Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**Carc. 1B: Cancérogénicité – Catégorie 1B**STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3**STOT RE 1: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 1*

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

· **1.1 Produktidentifikator**

· **Handelsname:** Beryllium Planchets

· **Artikelnummer:** 76010, 76014, 76015, 76016, 76017

· **CAS-Nummer:**

7440-41-7

· **EG-Nummer:**

231-150-7

· **Indexnummer:**

004-001-00-7

· **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**

Keine weiteren relevanten Informationen verfügbar.

· **Verwendung des Stoffes / des Gemisches** Laborchemikalien

· **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**

· **Hersteller/Lieferant:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: info@emsdiasum.com

www.emsdiasum.com

Science Services GmbH

Unterhachinger Str. 75

81737 München Germany

Tel: +49(0)89 18 93 668-0

safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org

Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h

· **Auskunftgebender Bereich:** Product safety department

· **1.4 Notrufnummer:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· **2.1 Einstufung des Stoffs oder Gemischs**

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



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 3 H301 Giftig bei Verschlucken.

Acute Tox. 2 H330 Lebensgefahr bei Einatmen.



GHS08 Gesundheitsgefahr

Carc. 1B H350i Kann bei Einatmen Krebs erzeugen.

STOT RE 1 H372 Schädigt das Respirationssystem bei längerer oder wiederholter Exposition.

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GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.
Eye Irrit. 2 H319 Verursacht schwere Augenreizung.
Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.
STOT SE 3 H335 Kann die Atemwege reizen.

· 2.2 Kennzeichnungselemente

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

Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· Gefahrenpiktogramme



GHS06 GHS08

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

Beryllium

· Gefahrenhinweise

H301 Giftig bei Verschlucken.
H330 Lebensgefahr bei Einatmen.
H315 Verursacht Hautreizungen.
H319 Verursacht schwere Augenreizung.
H317 Kann allergische Hautreaktionen verursachen.
H350i Kann bei Einatmen Krebs erzeugen.
H335 Kann die Atemwege reizen.
H372 Schädigt das Respirationssystem bei längerer oder wiederholter Exposition.

· Sicherheitshinweise

P301+P310 BEI VERSCHLUCKEN: Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.
P330 Mund ausspülen.
P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
P320 Besondere Behandlung dringend erforderlich (siehe auf diesem Kennzeichnungsetikett).
P362+P364 Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
P405 Unter Verschluss aufbewahren.
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· Zusätzliche Angaben:

Nur für gewerbliche Anwender.

· 2.3 Sonstige Gefahren

· Ergebnisse der PBT- und vPvB-Beurteilung

- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

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ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.1 Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
7440-41-7 Beryllium
- **Identifikationsnummer(n)**
- **EG-Nummer:** 231-150-7
- **Indexnummer:** 004-001-00-7

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**
Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.
Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.
Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.
- **Nach Einatmen:**
Frischluf- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.
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:** Kein Erbrechen herbeiführen, sofort Arzthilfe zuziehen.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

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

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.
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**
Informationen zur sicheren Handhabung siehe Abschnitt 7.
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

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Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
*Gute Entstaubung.
 Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.
 Behälter mit Vorsicht öffnen und handhaben.*
- **Hinweise zum Brand- und Explosionsschutz:** *Atemschutzgeräte bereithalten.*
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** *Keine besonderen Anforderungen.*
- **Zusammenlagerungshinweise:** *Nicht erforderlich.*
- **Weitere Angaben zu den Lagerbedingungen:** *Behälter dicht geschlossen halten.*
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **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:**

7440-41-7 Beryllium

AGW	Langzeitwert: 0,00006* 0,00014** mg/m ³ 1(I);AGS,X,10 *alveolengängig *einatembar; als Be
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- **Zusätzliche Hinweise:** *Als Grundlage dienen die bei der Erstellung gültigen Listen.*
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**
*Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
 Beschmutzte, getränkte Kleidung sofort ausziehen.
 Vor den Pausen und bei Arbeitsende Hände waschen.
 Getrennte Aufbewahrung der Schutzkleidung.
 Berührung mit den Augen und der Haut vermeiden.*
- **Atemschutz:**
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden. Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

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- **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.

- **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:	Pulver
Farbe:	Nicht bestimmt.
Geruch:	Geruchlos
Geruchsschwelle:	Nicht bestimmt.

- **pH-Wert:** Nicht anwendbar.

- **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt:	1.278 °C
Siedebeginn und Siedebereich:	2.970 °C

- **Flammpunkt:** Nicht anwendbar.

- **Entzündbarkeit (fest, gasförmig):** Der Stoff ist nicht entzündlich.

- **Zersetzungstemperatur:** Nicht bestimmt.

- **Selbstentzündungstemperatur:** Nicht bestimmt.

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

- **Explosionsgrenzen:**

Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.

- **Dampfdruck bei 990 °C:** 0,000133 hPa

Dichte bei 20 °C:	1,85 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.

- **Festkörpergehalt:** 100,0 %

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· 9.2 Sonstige Angaben

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** *Keine weiteren relevanten Informationen verfügbar.*
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** *Keine gefährlichen Reaktionen bekannt.*
- **10.4 Zu vermeidende Bedingungen** *Keine weiteren relevanten Informationen verfügbar.*
- **10.5 Unverträgliche Materialien:** *Keine weiteren relevanten Informationen verfügbar.*
- **10.6 Gefährliche Zersetzungsprodukte:** *Keine gefährlichen Zersetzungsprodukte bekannt.*

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**
*Giftig bei Verschlucken.
Lebensgefahr bei Einatmen.*
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung**
Verursacht schwere Augenreizung.
- **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** *Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.*
- **Karzinogenität**
Kann bei Einatmen Krebs erzeugen.
- **Reproduktionstoxizität** *Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.*
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Kann die Atemwege reizen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Schädigt das Respirationssystem bei längerer oder wiederholter Exposition.
- **Aspirationsgefahr** *Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.*

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** *Keine weiteren relevanten Informationen verfügbar.*
- **12.2 Persistenz und Abbaubarkeit** *Keine weiteren relevanten Informationen verfügbar.*
- **12.3 Bioakkumulationspotenzial** *Keine weiteren relevanten Informationen verfügbar.*
- **12.4 Mobilität im Boden** *Keine weiteren relevanten Informationen verfügbar.*
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
*Wassergefährdungsklasse 3 (Selbsteinstufung): stark wassergefährdend
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen, auch nicht in kleinen Mengen.
Trinkwassergefährdung bereits beim Auslaufen geringster Mengen in den Untergrund.*

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- **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

- | | |
|---|-----------------------|
| · 14.1 UN-Nummer | |
| · ADR, IMDG, IATA | UN1567 |
| · 14.2 Ordnungsgemäße UN-Versandbezeichnung | |
| · ADR | 1567 BERYLLIUM-PULVER |
| · IMDG, IATA | BERYLLIUM POWDER |
| · 14.3 Transportgefahrenklassen | |
| · ADR | |
|  | |
| · Klasse | 6.1 Giftige Stoffe |
| · Gefahrzettel | 6.1+4.1 |
| · IMDG | |
|  | |
| · Class | 6.1 Giftige Stoffe |
| · Label | 6.1/4.1 |
| · IATA | |
|  | |
| · Class | 6.1 Giftige Stoffe |
| · Label | 6.1 (4.1) |
| · 14.4 Verpackungsgruppe | |
| · ADR, IMDG, IATA | II |
| · 14.5 Umweltgefahren: | Nicht anwendbar. |

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- | | |
|---|--|
| <ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl): · EMS-Nummer: · Stowage Category · Handling Code · Segregation Code | <p style="margin-left: 20px;">Achtung: Giftige Stoffe</p> <p style="margin-left: 20px;">64</p> <p style="margin-left: 20px;">6.1-03</p> <p style="margin-left: 20px;">A</p> <p style="margin-left: 20px;">H1 Keep as dry as reasonably practicable
SG25 Stow "separated from" goods of classes 2.1 and 3.
SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.</p> |
| <ul style="list-style-type: none"> · 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code Nicht anwendbar. | |
| <ul style="list-style-type: none"> · Transport/weitere Angaben: | |
| <ul style="list-style-type: none"> · ADR · Begrenzte Menge (LQ) · Freigestellte Mengen (EQ)
 · Beförderungskategorie · Tunnelbeschränkungscode | |
| <ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | |
| <ul style="list-style-type: none"> · UN "Model Regulation": | |

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** Der Stoff ist nicht enthalten.
- **Seveso-Kategorie H2 AKUT TOXISCH**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 50 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 28
- **Nationale Vorschriften:**
- **Hinweise zur Beschäftigungsbeschränkung:**
Arbeitnehmer dürfen diesem Gefahrstoff nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.
- **Wassergefährdungsklasse: WGK 3 (Selbsteinstufung):** stark wassergefährdend.

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- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**
Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe
- **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.

- **Abkürzungen und Akronyme:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Akute Toxizität - oral – Kategorie 3

Acute Tox. 2: Akute Toxizität - inhalativ – Kategorie 2

Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2

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

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

Carc. 1B: Karzinogenität – Kategorie 1B

STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3

STOT RE 1: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 1

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** Beryllium Planchets

· **Articolo numero:** 76010, 76014, 76015, 76016, 76017

· **Numero CAS:**

7440-41-7

· **Numeri CE:**

231-150-7

· **Numero indice:**

004-001-00-7

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**

Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: info@emsdiasum.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

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

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

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

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



GHS06 teschio e tibie incrociate

Acute Tox. 3 H301 Tossico se ingerito.

Acute Tox. 2 H330 Letale se inalato.



GHS08 pericolo per la salute

Carc. 1B H350i Può provocare il cancro se inalato.

STOT RE 1 H372 Provoca danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.



GHS07

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Skin Irrit. 2 H315 Provoca irritazione cutanea.
Eye Irrit. 2 H319 Provoca grave irritazione oculare.
Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.
STOT SE 3 H335 Può irritare le vie respiratorie.

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

La sostanza è classificata ed etichettata conformemente al regolamento CLP.

· Pittogrammi di pericolo

GHS06 GHS08

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

berillio

· Indicazioni di pericolo*H301 Tossico se ingerito.**H330 Letale se inalato.**H315 Provoca irritazione cutanea.**H319 Provoca grave irritazione oculare.**H317 Può provocare una reazione allergica cutanea.**H350i Può provocare il cancro se inalato.**H335 Può irritare le vie respiratorie.**H372 Provoca danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.***· Consigli di prudenza**

P301+P310 IN CASO DI INGESTIONE: contattare immediatamente un CENTRO ANTIVELENI/un medico.

P330 Sciacquare la bocca.

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.

P320 Trattamento specifico urgente (vedere su questa etichetta).

P362+P364 Togliere tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.

P405 Conservare sotto chiave.

P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

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

· PBT: Non applicabile.

· vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

· 3.1 Caratteristiche chimiche: Sostanze**· Numero CAS**

7440-41-7 berillio

· Numeri di identificazione

· Numeri CE: 231-150-7

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· **Numero indice:** 004-001-00-7**SEZIONE 4: Misure di primo soccorso**· **4.1 Descrizione delle misure di primo soccorso**· **Indicazioni generali:***Allontanare immediatamente gli abiti contaminati dal prodotto.**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.**Levarsi la maschera protettiva solamente dopo aver tolto gli abiti contaminati.**In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.*· **Inalazione:***Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di un medico.**Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.*· **Contatto con la pelle:** *Lavare immediatamente con acqua e sapone sciacquando accuratamente.*· **Contatto con gli occhi:***Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte. Se persiste il dolore consultare il medico.*· **Ingestione:** *Non provocare il vomito, 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.*· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**· **Mezzi protettivi specifici:** *Indossare il respiratore.***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.**Provvedere ad una sufficiente areazione.*· **6.4 Riferimento ad altre sezioni***Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.**Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.**Per informazioni relative allo smaltimento vedere Capitolo 13.***SEZIONE 7: Manipolazione e immagazzinamento**· **7.1 Precauzioni per la manipolazione sicura***Accurata captazione delle polveri.**Accurata ventilazione/aspirazione nei luoghi di lavoro.**Aprire e manipolare i recipienti con cautela.*· **Indicazioni in caso di incendio ed esplosione:** *Tener pronto il respiratore.*

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- **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:**

7440-41-7 berillio

TWA	Valore a lungo termine: 0,00005 mg/m ³ (come Be), Al, cute, sen
-----	---

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

· **8.2 Controlli dell'esposizione**

· **Mezzi protettivi individuali:**

· **Norme generali protettive e di igiene del lavoro:**

- Tenere lontano da cibo, bevande e foraggi.
- Togliere immediatamente gli abiti contaminati.
- Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- Custodire separatamente l'equipaggiamento protettivo.
- Evitare il contatto con gli occhi e la pelle.

· **Maschera protettiva:**

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

· **Guanti protettivi:**



Guanti protettivi

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

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

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

· **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.

· **Tempo di permeazione del materiale dei guanti**

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

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· **Occhiali protettivi:**

Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**· **Indicazioni generali**· **Aspetto:** **Forma:** Polvere **Colore:** Non definito.· **Odore:** Inodore· **Soglia olfattiva:** Non definito.· **valori di pH:** Non applicabile.· **Cambiamento di stato** **Punto di fusione/punto di congelamento:** 1.278 °C **Punto di ebollizione iniziale e intervallo di ebollizione:** 2.970 °C· **Punto di infiammabilità:** Non applicabile.· **Infiammabilità (solidi, gas):** Sostanza non infiammabile.· **Temperatura di decomposizione:** Non definito.· **Temperatura di autoaccensione:** Non definito.· **Proprietà esplosive:** Prodotto non esplosivo.· **Limiti di infiammabilità:** **Inferiore:** Non definito. **Superiore:** Non definito.· **Tensione di vapore a 990 °C:** 0,000133 hPa· **Densità a 20 °C:** 1,85 g/cm³· **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. **Contenuto solido:** 100,0 %· **9.2 Altre informazioni** Non sono disponibili altre informazioni.

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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**
Tossico se ingerito.
Letale se inalato.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**
Provoca grave irritazione oculare.
- **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità**
Può provocare il cancro se inalato.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Provoca danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 3 (D) (Autoclassificazione): molto pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature, anche in piccole dosi.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di quantità minime di prodotto.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

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· 12.6 Altri effetti avversi Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

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

SEZIONE 14: Informazioni sul trasporto

- | | |
|---|---|
| · 14.1 Numero ONU
· ADR, IMDG, IATA | UN1567 |
| · 14.2 Nome di spedizione dell'ONU
· ADR
· IMDG, IATA | 1567 BERILLIO IN POLVERE
BERYLLIUM POWDER |
| · 14.3 Classi di pericolo connesso al trasporto
· ADR | |
|  | |
| · Classe
· Etichetta | 6.1 Materie tossiche
6.1+4.1 |
| · IMDG | |
|  | |
| · Class
· Label | 6.1 Materie tossiche
6.1/4.1 |
| · IATA | |
|  | |
| · Class
· Label | 6.1 Materie tossiche
6.1 (4.1) |
| · 14.4 Gruppo di imballaggio
· ADR, IMDG, IATA | II |
| · 14.5 Pericoli per l'ambiente: | Non applicabile. |
| · 14.6 Precauzioni speciali per gli utilizzatori
· N° identificazione pericolo (Numero Kemler):
· Numero EMS:
· Stowage Category | Attenzione: Materie tossiche
64
6.1-03
A |

(continua a pagina 8)

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

Stampato il: 03.06.2020

Revisione: 03.06.2020

Denominazione commerciale: Beryllium Planchets

(Segue da pagina 7)

· Handling Code	<i>H1 Keep as dry as reasonably practicable</i>
· Segregation Code	<i>SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.</i>
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	<i>Non applicabile.</i>
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	<i>500 g</i>
· Quantità esenti (EQ)	<i>Codice: E4 Quantità massima netta per imballaggio interno: 1 g Quantità massima netta per imballaggio esterno: 500 g</i>
· Categoria di trasporto	<i>2</i>
· Codice di restrizione in galleria	<i>D/E</i>
· IMDG	
· Limited quantities (LQ)	<i>500 g</i>
· Excepted quantities (EQ)	<i>Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g</i>
· UN "Model Regulation":	<i>UN 1567 BERILLIO IN POLVERE, 6.1 (4.1), II</i>

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** La sostanza non è contenuta
- **Categoria Seveso H2 TOSSICITÀ ACUTA**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 28
- **Disposizioni nazionali:**
- **Indicazioni relative alla limitazione delle attività lavorative:**
Il personale non deve essere esposto a questa sostanza pericolosa L'autorità può ammettere nei singoli casi delle eccezioni.
- **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.

- **Abbreviazioni e acronimi:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods

(continua a pagina 9)

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

Stampato il: 03.06.2020

Revisione: 03.06.2020

Denominazione commerciale: Beryllium Planchets

(Segue da pagina 8)

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Tossicità acuta per via orale – Categoria 3

Acute Tox. 2: Tossicità acuta per inalazione – Categoria 2

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

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

Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1

Carc. 1B: Cancerogenicità – Categoria 1B

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

STOT RE 1: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 1

IT

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

1 화학제품과 회사에 관한 정보

제품제품제명

- **제품명:** Beryllium Planchets
- **상품번호:** 76010, 76014, 76015, 76016, 76017
- **번호번호번호**
7440-41-7
- **EC 의번호:**
231-150-7

색인색인번호:

004-001-00-7

해당 해당 물질이나 혼합물과 관련된 위험도 및 사용 금지용도 추가적인 정보가 존재하지 않습니다.

- **제품의 권고 용도와 사용 생애의 제한 사항** 실 화 학 품
- **안전데이터표(Safety Data Sheet)내 공급업체 관련 연락처 정보**
- **제조사/수입자/유통업체 정보**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

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

Daedok Science, Co. Ltd.
34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com

- **추가적인 정보 및 문의 가능** duct safety department
- **비상연락 전화번호:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

- **순물질 또는 혼합물**의 분류분류



두개골과 대퇴골

급성 독성 - 경구 - 구분 3
급성 독성 - 흡입 - 구분 2

H301 삼키면 유독함
H330 흡입하면 치명적임



건강에 위험

(2 쪽에 계속)

물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(1 쪽부터계속)

발암성 - 구분 1B H350 암을 일으킬 수 있음
특정표적장기 독성 - 반복 노출 - 구분 1 H372 호흡체계를 장시간 또는 반복된 노출로 인하여 손상시킨다.



피부 부식성/피부 자극성 - 구분 2 H315 피부에 자극을 일으킴
심한 눈 손상성/눈 자극성 - 구분 2 H319 눈에 심한 자극을 일으킴
피부 과민성 - 구분 1 H317 알레르기성 피부 반응을 일으킬 수 있음
특정표적장기 독성 - 1회 노출 - 구분 3 H335 호흡 자극성을 일으킬 수 있음

- 라벨표가요소요소
- 라벨표가요소

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

- 그림문자



GHS06 GHS08

- 신호어 위험

- 상표상에명확히위험성이표시된성분:

beryllium

유해유해유해유해문구

- 삼키면 유독함
- 흡입하면 치명적임
- 피부에 자극을 일으킴
- 눈에 심한 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 암을 일으킬 수 있음
- 호흡 자극성을 일으킬 수 있음
- 호흡체계를 장시간 또는 반복된 노출로 인하여 손상시킨다.

- 예방조치문구문구

- 삼켰을 시: 즉시 독성물질센터/병원 연락 필요.
- 입을 씻어내시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으시오.
- 긴급히(라벨 참조) 처치를 하시오.
- 오염된 의복은 벗고 다시 사용 전 세척하십시오.
- 밀봉하여 저장하십시오.
- (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

기타기타유해성

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

3 구성성분의 명칭 및 함유량

- 화학적 특성: 화학물질
- CAS-번호표시
7440-41-7 beryllium

(3 쪽에계속)

물질안전보건자료

GHS에 따라

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

식별식별 번호

· EC 의번호: 231-150-7

색인색인번호: 004-001-00-7

(2 쪽부터 계속)

4 응급조치 요령

· **응급조치요령 내용 내용**

· **입 반쪽 정보 정보**

이제품에 의해 오염 된 의상은 즉시 제거 한다.

중 독 증 상 은 몇 시 간 이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.

반 드 시 오 염 된 의 상 을 완 전 히 제 거 한 후 에 호 흡 보 호 기 를 떼 어 낸 다.

불 규 칩 적 인 호 흡 이 나 호 흡 정 지 상 태 에 서 는 인 공 호 흡 을 실 시 한 다.

· **흡입했을 때:**

신 선 한 공 기 나 산 소 를 공 급 받 고, 의 료 진 의 도 움 을 구 한 다.

환 자 가 의 식 을 잃 었 을 경 우 에 는 안 전 한 자 세 에 서 환 자 를 운 반 한 다.

· **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행 군 다.

눈 에 눈 에 들 어 갔 을 때: 흐 르 는 물 에 눈 을 몇 분 동 안 씻 어 내 고 나 서, 증 상 이 지 속 될 경 우 에 는 의 사 와 상 담 한 다

· **먹었을 때:** 구 토 를 유 발 시 키 지 않 는 다. 즉 시 의 료 진 의 도 움 을 구 한 다.

기 타 기 타 의 사 의 주 의 사 항:

가 장 가 장 중 요 한 응 급 조 치 조 령 이 나 영 향 영 향 적 인 정 보 가 존 재 하 지 않 습 니 다.

· **즉각적인 의료처치 및 특별처리가 필요함을 시사 하는 징후** 중 화 적 인 정 보 가 존 재 하 지 않 습 니 다.

5 폭발·화재시 대처방법

· **소화제**

· **적절한 소화제:** 주 변 환 경 에 맞 는 화 재 진 화 방 법 을 사 용 한 다.

· **본 화학물질이나 혼합물에서 발생 하는 특 별 특 성** 추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.

· **소방 관 계** 대 한 대 령 사 항

화 재 화 재 진 화 방 법 관 련 방 호 구 및 예 방 조 치: 호 흡 보 호 장 비 설 치.

6 누출 사고 시 대처방법

· **개인적 예방조치, 보호장비 및 응급 절차 절차 없음.**

· **환경 환경 관 련 방 호 조 치:** 하 수 도 망 / 해 수 면 위 의 물 / 지 하 수 로 도 달 하 지 않 게 한 다.

· **밀폐 밀폐 방 호 조 치 방 호 조 치 소 재 소 재**

항 목 13 에 따 라 오 염 된 물 질 을 쓰 레 기 로 처 분 한 다.

충 분 한 환 기 가 되 도 록 한 다.

· **식 단 식 단 식 단** 참 조

안 전 관 리 에 대 한 정 보 는 제 7 장 을 참 고 하 시 오.

개 인 보 호 장 비 에 대 한 정 보 는 제 8 장 을 참 고 하 시 오.

쓰 레 기 처 리 에 대 한 정 보 는 제 13 장 을 참 고 하 시 오.

7 취급 및 저장방법

취급 취급 취급

· **안전 안전 방 호 조 치**

철 저 한 먼 지 제 거.

작 업 장 에 서 는 통 풍 이 잘 되 고 / 습 기 제 거 가 잘 되 게 주 의 한 다.

조 심 스 럽 게 용 기 를 개 봉 하 거 나 취 급 한 다.

(4 쪽에 계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(3 쪽부터 계속)

화재, 폭발, 폭발 위험, 대량 인명 피해에 관한 정보는 보호장비를 항상 비치한다.

- 혼합 위험성 물질의 위험성 평가 조건
- 보관 보관 보관
- 안전 및 건강 위험 특별 한 요구 사항이 없음.
- 하중 및 충격, 온도, 습도에 대한 특별한 주의 사항 없음
- 보관 조건에 관한 추가적인 정보를 기재하지 않음
- 구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

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

통제 용어 통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:	
7440-41-7 beryllium	
TLV (KR)	단기간 의 값: 0.01 mg/m ³ 장기간 의 값: 0.002 mg/m ³ as Be; Skin
BOELV (EU)	장기간 의 값: 0.0002 (0.0006)* mg/m ³ dermal/respiratory sensitisation; *until 11/7/26
PEL (US)	단기간 의 값: 0.002 mg/m ³ 장기간 의 값: 0.0002; 0.002* mg/m ³ 최고 노출 기준: 0.025**/ mg/m ³ , 0.005* ppm as Be; *see 1910.1024; **30 min peak/8-hr shift
REL (US)	최고 노출 기준: 0.0005 mg/m ³ as Be; See Pocket Guide App. A
TLV (US)	장기간 의 값: 0.00005 mg/m ³ as Be; inhalable; RSEN; soluble comp.: Skin, DSEN

· 추가 정보 정보 조 할 당시에 유 효 한 목 록 을 기초 로 사용 했다.

노출 통제 통제
개인 개인 보호 구

- **일반적 보호 조치 및 위생 조치:**
 - 식료 품, 음 료 수 와 사 료 로 부 터 멀 리 떨 어 뜨 려 놓 는 다.
 - 더 러 워 지 거 나 음 료 수 가 물 은 옷 은 즉 시 탈 의 한 다.
 - 휴 식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.
 - 방 호 복 은 따 로 보 관 한 다.
 - 눈 과 피 부 와 의 접 촉 은 피 한 다.
- **호흡기 보호 보호**
· 단 시 간 또 는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

보 수 보 호 보 호



보 호 용 장 갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.
투과 시간, 침투율 과 저하를 고려해서 장 갑 재 료 를 선택 한다.

(5 쪽에 계속)

물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(4 쪽부터계속)

- **장갑 의재료**
적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업자에따라서도다르게선정되어야한다.
 - **장갑 재료 의 투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.
- 부호 보호보호**



꼭조이는보안경

9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

· 일반정보	
외형외형외형	
· 물리상태상 태	가루
· 색:	알맞지않다.
· 냄새	무취의
· 후각역치	알맞지않다.
· pH:	해당사항 없음.
· 상태변화	
· 녹는점/어는점:	1,278 °C
· 초기초기 융는 점과 끝는점범위범위	2,970 °C
· 인화점:	해당사항 없음.
· 인화성고체고체기체	이제품은 가연 성 이없다.
· 분해온도	알맞지않다.
· 자기점화:	알맞지않다.
· 폭발위험:	이제품은폭발위험성이없다
· 인화안화안화폭발 위험의 상한상한 하한	
· 아래로:	알맞지않다.
· 위로위로위로	알맞지않다.
· 증기압 의경우 990 °C:	0.000133 hPa
· 밀도밀도밀도경우 20 °C:	1.85 g/cm ³
· 비중비중비중	알맞지않다.
· 증기밀도:	해당사항 없음.
· 증발증발증발 속도	해당사항 없음.
· 용해도:	
· 물:	불용해성의
· n 옥탄올/물 분배계수:	알맞지않다.
· 점도점도점도	
· 역학성:	해당사항 없음.
· 등점성:	해당사항 없음.
· 고체양 함량함량	100.0 %

(6 쪽에계속)

물질안전보건자료 GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(5 쪽부터계속)

기타 **정보** 정보 추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 유해 반응의 가능성 / 피해 야할 조건 규정 에 따라 사용 할 경우 해체는 없다
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해 야할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 유해 물질 추가적인 정보가 존재하지 않습니다.
- 유해 분해 물질: 위험성 있는 분해 물질은 알려지지 않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성 독성 독성
- 일차적 자극 효과
- 피부 피부 피부 자극 또는 자극 성: 피부와 점막 을 자극 한다.
- 심한 심한 심한 심한 자극 성: 자극
- 감각 화: 피부 접촉 을 통하여 감각 화가 가능성 이 있다.
- 다음 다음 다음 의 잠재적 인 효과 에 대한 정보
- C₁ 효과 유 발 유 발 번 이 성 그 러 고 생 생 독 성 발 암 성 - 구분 1B

12 환경에 미치는 영향

- 독성 독성 독성
- 수생 독성: 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 정보
- 일반 일반 일반 특징
- 수질 오염 등급 3 (자체 등급 분류): 심하게 수질 오염 이 된 지하수 나, 하천 으로 또는 하수 도 망 에 도 달 하지 않 게 한다. 역 시 극 소 수 의 양 이 라 도 안 된 다.
- 지하수로 아주 미세한 양이 유입되었을 경우 엔 이미 식 수 오염 상태 이 다
- PBT (잔류성, 생물농축성, 물질 분해) vPvB (고 잔류성, 고 생물농축성, 물질 분해) 결과
- PBT (잔류성, 생물농축성, 물질 분해) 당사 항 없음.
- vPvB (고 잔류성, 고 생물농축성, 물질 분해) 당사 항 없음.
- 기타 기타 부 작용 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
- 권고 권고 권고 쓰레기 와 함께 처리 되 어 서 는 안 된 다. 하수 도 망 으 로 유 입 되 서 는 안 된 다.

(7 쪽에 계속)

인쇄일자: 2020.06.03



개정: 2020.06.03

제품명: Beryllium Planchets

(6 쪽부터계속)

· 비위생적 포장포장 권고 권고 권고 권고 의지침에입각한쓰레기처리.

14 운송에 필요한 정보

유엔 유엔 유엔 번호 · ADR, IMDG, IATA	UN1567
적정적정적정적정명 · ADR · IMDG, IATA	1567 BERYLLIUM POWDER BERYLLIUM POWDER
교통 교통 교통 교통 클래스 · ADR	
	
등급 등급 등급 · 위험 위험 라벨라벨	6.1 독성물질 6.1+4.1
· IMDG	
	
· Class · Label	6.1 독성물질 6.1/4.1
· IATA	
	
· Class · Label	6.1 독성물질 6.1 (4.1)
· 용기등급 · ADR, IMDG, IATA	II
· 환경적 유해물질:	해당사항 없음.
· 이동시 특별 예방 조치 위험 위험 위험 코드 · E 번호 번호 번호 · Stowage Category · Handling Code	경고: 독성물질 64 6.1-03 A H1 Keep as dry as reasonably practicable

(8 쪽에계속)

물질안전보건자료 GHS에 따라 라다

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(7 쪽부터 계속)

<ul style="list-style-type: none"> · Segregation Code 	SG25 Stow "separated from" goods of classes 2.1 and 3. SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.
<ul style="list-style-type: none"> · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 운송 	해당사항 없음.
<ul style="list-style-type: none"> · 운송/추가정보 	
<ul style="list-style-type: none"> · ADR 한정량/제한량 수량 · Excepted quantities (EQ)	500 g Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
운송/제한량 구분 터널/제한량/제한 코드	2 D/E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	500 g Code: E4 Maximum net quantity per inner packaging: 1 g Maximum net quantity per outer packaging: 500 g
<ul style="list-style-type: none"> · UN번호/위험등급/유체 	UN 1567 BERYLLIUM POWDER, 6.1 (4.1), II

15 법적 규제현황

<ul style="list-style-type: none"> · 산업안전보건법에 의해 규제 제조/제조/금지물질:	
성분 이 포함되어 있지 않다	
<ul style="list-style-type: none"> · 허가대상물질: 성분 이 포함되어 있다	
<ul style="list-style-type: none"> · 관리대상유해물질: 성분 이 포함되어 있지 않다	
<ul style="list-style-type: none"> · 작업환경측정 대상 유해인자 	1E6
<ul style="list-style-type: none"> · 특수건강 측정 대상 유해인자 	1E6
해당 해당 물질 또는 혼합물에 대한 국내 유해물질 관리법	
<ul style="list-style-type: none"> · Korean Existing Chemical Inventory 	KE-02829
<ul style="list-style-type: none"> · 화학물질관리법 	
<ul style="list-style-type: none"> · 사고대비물질 성분 이 포함되어 있지 않다	
<ul style="list-style-type: none"> · 금지물질 성분 이 포함되어 있지 않다	

(9 쪽에 계속)

물질안전보건자료 GHS에 따라라

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

(8 쪽부터계속)

· 제한물질
성분이포함되어있지않다
· 유독물질
성분이포함되어있지않다
· 허가물질
성분이포함되어있지않다
· 위험물안전관리법 (위험물 및 지정수량) False
등록명목표호는 GHS 분류 대상 화학물질
성분이포함되어있지않다
· ‘21년까지 등록하여야 할 암, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존 화학물질
성분이포함되어있다
· 중점관리물질(양) 지정 지정
· 표1 중점관리물질(제관전) 관련 관련
성분이포함되어있지않다
· 표2 중점관리물질(제관전) 관련 관련
성분이포함되어있다

· 라벨 라벨 요
 본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
· 그림 문자



GHS06 GHS08

- 신호어 위험
- 상표상에 명확히 위험성이 표시된 성분: beryllium
- 유해 **유해 위험 문구**
 - 삼키면 유독함
 - 흡입하면 치명적임
 - 피부에 자극을 일으킴
 - 눈에 심한 자극을 일으킴
 - 알레르기성 피부 반응을 일으킬 수 있음
 - 암을 일으킬 수 있음
 - 호흡 자극성을 일으킬 수 있음
 - 호흡계통을 장시간 또는 반복된 노출로 인하여 손상시킨다.

- 예방 조치 **문구 문구**
 - 삼켰을 시: 즉시 독성물질센터/병원 연락 필요.
 - 입을 씻어내시오.
 - 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면 콘택트렌즈를 제거하시오. 계속 씻으시오.
 - 긴급히(라벨 참조) 처치를 하시오.
 - 오염된 의복은 벗고 다시 사용 전 세척하시오.
 - 밀봉하여 저장하시오.
 - (지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하시오.

- 국내 규정:
- 사용 제한에 관한 정보
 노동자들은 이러한 위험물질을 내버리지 말아야 한다. 개별적인 경우에 관청은 예외를 허가할 수 있다.

(10 쪽에 계속)

물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.06.03

개정: 2020.06.03

제품명: Beryllium Planchets

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

(9 쪽부터계속)

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은
기술하지않았으며계약적인법률관계에기반을두고있지도않다

최초작성일자: 2020.06.03

개정일자: 1 / 2020.06.03

· **약어와 두문자어:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

KR

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 03.06.2020

Revisión: 03.06.2020

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

· 1.1 Identificador del producto

- **Nombre comercial:** Beryllium Planchets
- **Número del artículo:** 76010, 76014, 76015, 76016, 76017
- **Número CAS:**
7440-41-7
- **Número CE:**
231-150-7
- **Número de clasificación:**
004-001-00-7

· 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**



GHS06 calavera y tibias cruzadas

Acute Tox. 3 H301 Tóxico en caso de ingestión.

Acute Tox. 2 H330 Mortal en caso de inhalación.



GHS08 peligro para la salud

Carc. 1B H350i Puede provocar cáncer por inhalación.

STOT RE 1 H372 Provoca daños en el sistema respiratorio tras exposiciones prolongadas o repetidas

(se continua en página 2)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 03.06.2020

Revisión: 03.06.2020

Nombre comercial: **Beryllium Planchets**

(se continua en página 1)



GHS07

Skin Irrit. 2 H315 Provoca irritación cutánea.
 Eye Irrit. 2 H319 Provoca irritación ocular grave.
 Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.
 STOT SE 3 H335 Puede irritar las vías respiratorias.

· 2.2 Elementos de la etiqueta

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

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS06 GHS08

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

berilio

· Indicaciones de peligro

H301 Tóxico en caso de ingestión.
 H330 Mortal en caso de inhalación.
 H315 Provoca irritación cutánea.
 H319 Provoca irritación ocular grave.
 H317 Puede provocar una reacción alérgica en la piel.
 H350i Puede provocar cáncer por inhalación.
 H335 Puede irritar las vías respiratorias.
 H372 Provoca daños en el sistema respiratorio tras exposiciones prolongadas o repetidas

· Consejos de prudencia

P301+P310 EN CASO DE INGESTIÓN: Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/ médico.
 P330 Enjuagarse la boca.
 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.
 P320 Se necesita urgentemente un tratamiento específico (ver en esta etiqueta).
 P362+P364 Quitar las prendas contaminadas y lavarlas antes de volver a usarlas.
 P405 Guardar bajo llave.
 P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/ internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· **PBT:** No aplicable.
 · **mPmB:** No aplicable.

ES

(se continua en página 3)

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 03.06.2020

Revisión: 03.06.2020

Nombre comercial: **Beryllium Planchets**

(se continua en página 2)

SECCIÓN 3: Composición/información sobre los componentes

- **3.1 Caracterización química: Sustancias**
- **Denominación N° CAS**
7440-41-7 berilio
- **Número(s) de identificación**
- **Número CE:** 231-150-7
- **Número de clasificación:** 004-001-00-7

SECCIÓN 4: Primeros auxilios

- **4.1 Descripción de los primeros auxilios**
- **Instrucciones generales:**
Quitarse de inmediato toda prenda contaminada con el producto.
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.
Antes de quitarse la protección respiratoria, quítese la ropa contaminada.
En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.
- **En caso de inhalación del producto:**
Suministrar aire fresco u oxígeno; solicitar ayuda médica.
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:** No provocar el vómito y solicitar asistencia médica inmediata.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

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

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 ítem 13.
Asegurar suficiente ventilación.
- **6.4 Referencia a otras secciones**
Ver capítulo 7 para mayor información sobre una manipulación segura.
Ver capítulo 8 para mayor información sobre el equipo personal de protección.

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Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
Desempolvar cuidadosamente.
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
Abrir y manejar el recipiente con cuidado.
- **Prevención de incendios y explosiones:** Tener preparados los aparatos respiratorios.
- **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:**

7440-41-7 berilio

LEP	Valor de larga duración: 0,0002 mg/m ³ CIB, Sen, r
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- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.
- **8.2 Controles de la exposición**
- **Equipo de protección individual:**
- **Medidas generales de protección e higiene:**
Mantener alejado de alimentos, bebidas y alimentos para animales.
Quitarse de inmediato la ropa ensuciada o impregnada.
Lavarse las manos antes de las pausas y al final del trabajo.
Guardar la ropa protectora por separado.
Evitar el contacto con los ojos y la piel.
- **Protección respiratoria:**
Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.
- **Protección de manos:**



Guantes de protección

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

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· **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.

· **Tiempo de penetración del material de los guantes**

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

· **Protección de ojos:**



Gafas de protección herméticas

SECCIÓN 9: Propiedades físicas y químicas

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

· **Datos generales**

· **Aspecto:**

Forma: En polvo

Color: No determinado.

· **Olor:** Inodoro

· **Umbral olfativo:** No determinado.

· **valor pH:** No aplicable.

· **Cambio de estado**

Punto de fusión/punto de congelación: 1.278 °C

Punto inicial de ebullición e intervalo de ebullición: 2.970 °C

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

· **Inflamabilidad (sólido, gas):** La sustancia no es inflamable.

· **Temperatura de descomposición:** No determinado.

· **Temperatura de auto-inflamación:** No determinado.

· **Propiedades explosivas:** El producto no es explosivo.

· **Límites de explosión:**

Inferior: No determinado.

Superior: No determinado.

· **Presión de vapor a 990 °C:** 0,000133 hPa

· **Densidad a 20 °C:** 1,85 g/cm³

· **Densidad relativa** No determinado.

· **Densidad de vapor** No aplicable.

· **Tasa de evaporación:** No aplicable.

· **Solubilidad en / miscibilidad con agua:**

Insoluble.

· **Coefficiente de reparto: n-octanol/agua:** No determinado.

· **Viscosidad:**

Dinámica: No aplicable.

Cinemática: No aplicable.

· **Contenido de cuerpos sólidos:** 100,0 %

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· 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**
Tóxico en caso de ingestión.
Mortal en caso de inhalación.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**
Provoca irritación ocular grave.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad**
Puede provocar cáncer por inhalación.
- **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**
Puede irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
Provoca daños en el sistema respiratorio tras exposiciones prolongadas o repetidas
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 3 (autoclasiificación): muy peligroso para el agua
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados, ni siquiera en pequeñas cantidades.
Una cantidad ínfima vertida en el subsuelo ya representa un peligro para el agua potable.

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- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

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

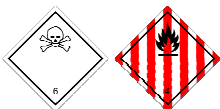
SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN1567

- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1567 BERILIO EN POLVO
- **IMDG, IATA** BERYLLIUM POWDER

- **14.3 Clase(s) de peligro para el transporte**

- **ADR**



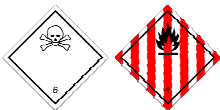
- **Clase** 6.1 Materias tóxicas
- **Etiqueta** 6.1+4.1

- **IMDG**



- **Class** 6.1 Materias tóxicas
- **Label** 6.1/4.1

- **IATA**



- **Class** 6.1 Materias tóxicas
- **Label** 6.1 (4.1)

- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** II

- **14.5 Peligros para el medio ambiente:** No aplicable.

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<ul style="list-style-type: none"> · 14.6 Precauciones particulares para los usuarios · Número de identificación de peligro (Número Kemler): · Número EMS: · Stowage Category · Handling Code · Segregation Code 	<p>Atención: <i>Materias tóxicas</i></p> <p>64</p> <p>6.1-03</p> <p>A</p> <p><i>H1 Keep as dry as reasonably practicable</i></p> <p><i>SG25 Stow "separated from" goods of classes 2.1 and 3.</i></p> <p><i>SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.</i></p>
<ul style="list-style-type: none"> · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC 	<p><i>No aplicable.</i></p>
<p>· Transporte/datos adicionales:</p>	
<ul style="list-style-type: none"> · ADR · Cantidades limitadas (LQ) · Cantidades exceptuadas (EQ) · Categoría de transporte · Código de restricción del túnel 	<p>500 g</p> <p>Código: E4</p> <p><i>Cantidad neta máxima por envase interior: 1 g</i></p> <p><i>Cantidad neta máxima por embalaje exterior: 500 g</i></p> <p>2</p> <p>D/E</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>500 g</p> <p>Code: E4</p> <p><i>Maximum net quantity per inner packaging: 1 g</i></p> <p><i>Maximum net quantity per outer packaging: 500 g</i></p>
<ul style="list-style-type: none"> · "Reglamentación Modelo" de la UNECE: 	<p><i>UN 1567 BERILIO EN POLVO, 6.1 (4.1), II</i></p>

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** No contiene la sustancia.
- **Categoría Seveso H2 TOXICIDAD AGUDA**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior** 50 t
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior** 200 t
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 28
- **Disposiciones nacionales:**
- **Indicaciones sobre las limitaciones de trabajo:**
Los empleados no deben exponerse a esta sustancia peligrosa. En casos aislados las autoridades pueden hacer excepciones.
- **15.2 Evaluación de la seguridad química:** *Una evaluación de la seguridad química no se ha llevado a cabo.*

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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.

· **Abreviaturas y acrónimos:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Toxicidad aguda - oral – Categoría 3

Acute Tox. 2: Toxicidad aguda - por inhalación – Categoría 2

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

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

Skin Sens. 1: Sensibilización cutánea – Categoría 1

Carc. 1B: Carcinogenicidad – Categoría 1B

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

STOT RE 1: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 1

ES