

# Safety Data Sheet

acc. to OSHA HCS

Printing date 04/22/2020

Reviewed on 04/22/2020

## 1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Article number:** 20156-10, 26204-03
- **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**



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
 POTASSIUM HYDROXIDE
- **Hazard statements**  
 Causes severe skin burns and eye damage.
- **Precautionary statements**  
 Do not breathe dusts or mists.  
 Wash thoroughly after handling.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 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.  
 Immediately call a poison center/doctor.  
 Specific treatment (see on this label).  
 Wash contaminated clothing before reuse.

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Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1310-58-3	POTASSIUM HYDROXIDE	>2.5-≤10%
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### 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.

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** No further relevant information available.

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
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:**

1310-58-3	POTASSIUM HYDROXIDE	0.18 mg/m <sup>3</sup>
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· **PAC-2:**

1310-58-3	POTASSIUM HYDROXIDE	2 mg/m <sup>3</sup>
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· **PAC-3:**

1310-58-3	POTASSIUM HYDROXIDE	54 mg/m <sup>3</sup>
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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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

**1310-58-3 POTASSIUM HYDROXIDE**

REL	Ceiling limit value: 2 mg/m <sup>3</sup>
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TLV	Ceiling limit value: 2 mg/m <sup>3</sup>
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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

**Form:** Liquid

**Color:** Clear

· **Odor:** Recognizable

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 100 °C (212 °F)

· **Flash point:** Not applicable.

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· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	1.0208 g/cm <sup>3</sup> (8.51858 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Water:</b>	90.0 %
<b>VOC content:</b>	0.00 %
	0.0 g/l / 0.00 lb/gal
<b>Solids content:</b>	2.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

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

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

**1310-58-3 POTASSIUM HYDROXIDE**

Oral	LD50	273 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.

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US

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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- **on the eye:**

- Strong caustic effect.

- Strong irritant with the danger of severe eye injury.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

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

- Harmful

- Corrosive

- Irritant

- Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

- None of the ingredients is listed.

- **NTP (National Toxicology Program)**

- None of the ingredients is listed.

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

- None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

- Not hazardous for water.

- Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **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.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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## 14 Transport information

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	UN1814
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT</li> <li>· ADR</li> <li>· IMDG, IATA</li> </ul>	Potassium hydroxide, solution 1814 POTASSIUM HYDROXIDE SOLUTION POTASSIUM HYDROXIDE SOLUTION
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT</li> </ul>	<div style="text-align: center;">  <p>CORROSIVE 8</p> </div>
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	8 Corrosive substances 8
<ul style="list-style-type: none"> <li>· ADR, IMDG, IATA</li> </ul>	<div style="text-align: center;">  <p>8</p> </div>
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	8 Corrosive substances 8
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>	II
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Hazard identification number (Kemler code):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> <li>· Segregation Code</li> </ul>	Warning: Corrosive substances 80 F-A,S-B Alkalis A SG35 Stow "separated from" SGG1-acids
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· DOT</li> <li>· Quantity limitations</li> </ul>	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
<ul style="list-style-type: none"> <li>· ADR</li> <li>· Excepted quantities (EQ)</li> </ul>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> </ul>	IL

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

## 15 Regulatory information

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

· **Sara**

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS05

· **Signal word** Danger

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

POTASSIUM HYDROXIDE

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# Safety Data Sheet

## acc. to OSHA HCS

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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- **Hazard statements**

*Causes severe skin burns and eye damage.*

- **Precautionary statements**

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

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

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*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.*

*Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*Wash contaminated clothing before reuse.*

*Store locked up.*

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

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

## 16 Other information

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

- **Date of preparation / last revision** 04/22/2020 / -

- **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*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety **Health***

***TLV: Threshold Limit Value***

***PEL: Permissible Exposure Limit***

***REL: Recommended Exposure Limit***

***Skin Corr. 1A: Skin corrosion/irritation – Category 1A***

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

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

### 1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Article number:** 20156-10, 26204-03
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://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](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

- **Signal word** Danger

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# Safety Data Sheet

## according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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

POTASSIUM HYDROXIDE

- **Hazard statements**

Causes severe skin burns and eye damage.

- **Precautionary statements**

Do not breathe dusts or mists.

Wash thoroughly after handling.

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

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

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: Mixtures**

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

- **Dangerous components:**

1310-58-3	POTASSIUM HYDROXIDE	>2.5-≤10%
-----------	---------------------	-----------

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

### 4 First Aid Measures

- **Description of first aid measures**

- **General information:**

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.

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

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

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

AU

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# Safety Data Sheet

## according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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### 5 Fire Fighting Measures

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

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.  
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**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

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

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

**1310-58-3 POTASSIUM HYDROXIDE**

WES Peak limitation: 2 mg/m<sup>3</sup>

- **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.

(Contd. on page 4)

## Safety Data Sheet according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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*Immediately remove all soiled and contaminated clothing*

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

*Avoid contact with the eyes.*

*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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*

**· Penetration time of glove material**

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

**· Eye protection:**



Tightly sealed goggles

### 9 Physical and Chemical Properties

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

**· General Information**

**· Appearance:**

**Form:** Liquid

**Colour:** Clear

**· Odour:** Recognisable

**· Odour threshold:** Not determined.

**· pH-value:** Not determined.

**· Change in condition**

**Melting point/freezing point:** Undetermined.

**Initial boiling point and boiling range:** 100 °C

**· Flash point:** Not applicable.

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

**· Decomposition temperature:** Not determined.

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

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

(Contd. on page 5)

## Safety Data Sheet according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 4)

· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density at 20 °C:</b>	1.0208 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Water:</b>	90.0 %
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	2.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

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

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

· <b>LD/LC50 values relevant for classification:</b>		
<b>1310-58-3 POTASSIUM HYDROXIDE</b>		
Oral	LD50	273 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation** No sensitising effects known.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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## Safety Data Sheet according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 5)

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.


### 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:**
- Not hazardous for water.
- Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

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

### 14 Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>  | <p>UN1814</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADG</b></li> <li>· <b>IMDG, IATA</b></li> </ul>   | <p>1814 POTASSIUM HYDROXIDE SOLUTION<br/>POTASSIUM HYDROXIDE SOLUTION</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADG, IMDG, IATA</b></li> </ul>   |   |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul> | <p>8 Corrosive substances.<br/>8</p>                                      |

(Contd. on page 7)

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.04.2020

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 6)

· <b>Packing group</b> · <b>ADG, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Segregation Code</b>	Warning: Corrosive substances. 80 F-A,S-B Alkalis A SG35 Stow "separated from" SGG1-acids
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	2 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

### 15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

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

1310-58-3 | POTASSIUM HYDROXIDE | S5, S6, S10

· **Australia: Priority Existing Chemicals**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS05

· **Signal word** Danger

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

POTASSIUM HYDROXIDE

(Contd. on page 8)

-AU



## Safety Data Sheet according to WHS Regulations

Printing date 22.04.2020

Revision: 22.04.2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 7)

- **Hazard statements**

*Causes severe skin burns and eye damage.*

- **Precautionary statements**

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

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

*IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*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.*

*Immediately call a POISON CENTER/doctor.*

*Specific treatment (see on this label).*

*Wash contaminated clothing before reuse.*

*Store locked up.*

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

- **Directive 2012/18/EU**

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

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

### 16 Other information

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

- **Abbreviations and acronyms:**

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

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

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

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

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

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

### 1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Article number:** 20156-10, 26204-03
- **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**



GHS05 Corrosion

Skin Corrosion - Category 1A H314 Causes severe skin burns and eye damage.

Serious Eye Damage - Category 1 H318 Causes serious eye damage.

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



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
 POTASSIUM HYDROXIDE
- **Hazard statements**  
 Causes severe skin burns and eye damage.
- **Precautionary statements**  
 Do not breathe dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 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.  
 Immediately call a poison center/doctor.  
 Specific treatment (see on this label).  
 Wash contaminated clothing before reuse.

(Contd. on page 2)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 1)

Store locked up.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

### 3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1310-58-3	POTASSIUM HYDROXIDE	5-10% w/w *
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\* Actual concentration ranges are withheld as a trade secret.

### 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.

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** No special measures required.

CA

(Contd. on page 3)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 2)

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
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**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

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

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

**1310-58-3 POTASSIUM HYDROXIDE**

EL Ceiling: 2 mg/m<sup>3</sup>

EV Ceiling: 2 mg/m<sup>3</sup>

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

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
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.

(Contd. on page 4)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 3)

· **Protection of hands:**



Protective gloves

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

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

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

· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Recognizable

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 100 °C

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 1.0208 g/cm<sup>3</sup>

· **Relative density** Not determined.

(Contd. on page 5)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 4)

· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Water:</b>	90.0 %
<b>Solids content:</b>	2.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

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

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

**1310-58-3 POTASSIUM HYDROXIDE**

Oral	LD50	273 mg/kg (rat)
------	------	-----------------

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

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

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

None of the ingredients is listed.

(Contd. on page 6)

CA

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 5)

· **NTP (National Toxicology Program)**

None of the ingredients is listed.


### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Not hazardous for water.
- Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |   |                                   |
|---|-----------------------------------|
| · <b>UN-Number</b>  |                                   |
| · <b>DOT/TDG, ADR, IMDG, IATA</b>   | UN1814                            |
| · <b>UN proper shipping name</b>  |                                   |
| · <b>DOT/TDG</b>  | Potassium hydroxide, solution     |
| · <b>ADR</b>  | 1814 POTASSIUM HYDROXIDE SOLUTION |
| · <b>IMDG, IATA</b>   | POTASSIUM HYDROXIDE SOLUTION      |
| · <b>Transport hazard class(es)</b>   |                                   |
| · <b>DOT/TDG (Transport dangerous goods):</b>                                       |                                   |
|  |                                   |
| · <b>Class</b>  | 8 Corrosive substances            |

(Contd. on page 7)

# Safety Data Sheet


## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 6)

· <b>Label</b>	8
· <b>ADR, IMDG, IATA</b>	
	
· <b>Class</b>	8 Corrosive substances
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>DOT/TDG, ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Hazard identification number (Kemler code):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT/TDG</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

### 15 Regulatory information

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

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

All components have the value ACTIVE.

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CA



# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 04/22/2020

Reviewed on 04/22/2020

**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Contd. of page 7)

· **Canadian substance listings:**

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

All ingredients are listed.

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

None of the ingredients is listed.

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

1310-58-3 POTASSIUM HYDROXIDE

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

· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

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

POTASSIUM HYDROXIDE

· **Hazard statements**

Causes severe skin burns and eye damage.

· **Precautionary statements**

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

Wash thoroughly after handling.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

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

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

## 16 Other information

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

· **Date of the latest revision of the safety data sheet** 04/22/2020 / -

· **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

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Printing date 22.04.2020

Revision: 22.04.2020

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

- **1.1 Product identifier**
- **Trade name:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Article number:** 20156-10, 26204-03
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.

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



GHS05

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
POTASSIUM HYDROXIDE
- **Hazard statements**  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P321 Specific treatment (see on this label).

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# Safety data sheet

according to 1907/2006/EC, Article 31

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**Trade name: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

## SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**

CAS: 1310-58-3	POTASSIUM HYDROXIDE	>2.5-≤10%
EINECS: 215-181-3	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	

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

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
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.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Call for a doctor immediately.  
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## SECTION 5: Firefighting measures

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

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Dilute with plenty of water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.

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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**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**· Information about fire - and explosion protection:** No special measures required.

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

**· Storage:**

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

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

**· Further information about storage conditions:** Keep container tightly sealed.

**· 7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

**· 8.1 Control parameters**

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

**1310-58-3 POTASSIUM HYDROXIDE**

WEL Short-term value: 2 mg/m<sup>3</sup>

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

**· 8.2 Exposure controls**

**· Personal protective equipment:**

**· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

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

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· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Clear

· **Odour:** Recognisable

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 1.0208 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Fully miscible.

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

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

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<b>· Solvent content:</b>	
<b>Water:</b>	90.0 %
<b>VOC (EC)</b>	0.00 %
<b>· Solids content:</b>	
2.0 %	
<b>· 9.2 Other information</b>	
No further relevant information available.	

### SECTION 10: Stability and reactivity

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

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

#### 1310-58-3 POTASSIUM HYDROXIDE

Oral	LD50	273 mg/kg (rat)
------	------	-----------------

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Not hazardous for water.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.

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(Contd. of page 5)

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

### SECTION 13: Disposal considerations

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

### SECTION 14: Transport information

- |   |   |
|---|---|
| · <b>14.1 UN-Number</b><br>· <b>ADR, IMDG, IATA</b>   | UN1814  |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR</b><br>· <b>IMDG, IATA</b>  | 1814 POTASSIUM HYDROXIDE SOLUTION<br>POTASSIUM HYDROXIDE SOLUTION   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, IMDG, IATA</b>  |   |
|    |   |
| · <b>Class</b><br>· <b>Label</b>  | 8 Corrosive substances.<br>8  |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>   | II  |
| · <b>14.5 Environmental hazards:</b>  | Not applicable.   |
| · <b>14.6 Special precautions for user</b><br>· <b>Hazard identification number (Kemler code):</b><br>· <b>EMS Number:</b><br>· <b>Segregation groups</b><br>· <b>Stowage Category</b><br>· <b>Segregation Code</b> | Warning: Corrosive substances.<br>80<br>F-A,S-B<br>Alkalis<br>A<br>SG35 Stow "separated from" SGG1-acids              |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>  | Not applicable.   |
| · <b>Transport/Additional information:</b>  |   |
| · <b>ADR</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>   | 1L<br>Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |

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· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
<hr/>	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, 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** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

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

- **Relevant phrases**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

- **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

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



# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.04.2020

Herziening van: 22.04.2020

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

- **1.1 Productidentificatie**
- **Handelsnaam:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Artikelnummer:** 20156-10, 26204-03
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: [info@aurion.nl](mailto:info@aurion.nl)
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIEK 2: Identificatie van de gevaren

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



GHS05 corrosie

Skin Corr. 1A H314 Veroorzaakt ernstige brandwonden en oogletsel.  
Eye Dam. 1 H318 Veroorzaakt ernstig oogletsel.

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



GHS05

- **Signaalwoord** Gevaar
- **Gevaaraanduidende componenten voor de etikettering:**  
kaliumhydroxide
- **Gevarenaanduidingen**  
H314 Veroorzaakt ernstige brandwonden en oogletsel.

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

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**Handelsnaam: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Vervolg van blz. 1)

### · Veiligheidsaanbevelingen

- P303+P361+P353 **BIJ CONTACT MET DE HUID (of het haar):** verontreinigde kleding onmiddellijk uittrekken.  
Huid met water afspoelen [of afdouchen].
- P305+P351+P338 **BIJ CONTACT MET DE OGEN:** voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
- P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.
- P321 Specifieke behandeling vereist (zie op dit etiket).
- P405 Achter slot bewaren.
- P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

### · 2.3 Andere gevaren

#### · Resultaten van PBT- en zPzB-beoordeling

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

## RUBRIEK 3: Samenstelling en informatie over de bestanddelen

### · 3.2 Chemische karakterisering: Mengsels

- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

#### · Gevaarlijke inhoudstoffen:

CAS: 1310-58-3	kaliumhydroxide	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	>2,5-≤10%
EINECS: 215-181-3			

#### · Aanvullende gegevens:

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

## RUBRIEK 4: Eerstehulpmaatregelen

### · 4.1 Beschrijving van de eerstehulpmaatregelen

#### · Algemene informatie:

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.

- **Na het inademen:** Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.
- **Na inslikken:**  
Onmiddellijk arts raadplegen.  
Drink zeer veel water en voer verse lucht aan. Onmiddellijk een dokter waarschuwen.
- **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.

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.04.2020

Herziening van: 22.04.2020

**Handelsnaam: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Vervolg van blz. 2)

- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**  
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvorzorgsmaatregelen:** Met veel water verdunnen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**  
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.  
Neutralisatiemiddel gebruiken.  
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**  
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.  
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Geen bijzondere maatregelen noodzakelijk.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**  
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**  
Verwijderd houden van eet- en drinkwaren.  
Verontreinigde kleding onmiddellijk uittrekken.  
Vóór de pauze en aan het einde van werktijd handen wassen.  
Aanraking met de ogen vermijden.  
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 ademhalingsstoestel gebruiken.

(Vervolg op blz. 4)

# Veiligheidsinformatieblad

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**Handelsnaam: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Vervolg van blz. 3)

**· Handbescherming:**

**Veiligheidshandschoenen**

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.

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

**· Handschoenmateriaal**

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

**· Doordringingstijd van het handschoenmateriaal**

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

**· Oogbescherming:**

**Nauw aansluitende veiligheidsbril**

### RUBRIEK 9: Fysische en chemische eigenschappen

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

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Helder
<b>Geur:</b>	Waarneembaar
<b>Geurdrempelwaarde:</b>	Niet bepaald.

**· pH-waarde:** Niet bepaald.

**· Toestandsverandering**

<b>Smelt-/vriespunt:</b>	Niet bepaald.
<b>Beginkookpunt en kooktraject:</b>	100 °C

**· Vlampunt:** Niet bruikbaar.

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

**· Ontledingstemperatuur:** Niet bepaald.

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

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

**· Ontploffingsgrenzen:**

<b>Onderste:</b>	Niet bepaald.
<b>Bovenste:</b>	Niet bepaald.

**· Dampspanning bij 20 °C:** 23 hPa

**· Dichtheid bij 20 °C:** 1,0208 g/cm<sup>3</sup>

**· Relatieve dichtheid** Niet bepaald.

(Vervolg op blz. 5)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

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**Handelsnaam: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Vervolg van blz. 4)

· <b>Dampdichtheid</b>	Niet bepaald.
· <b>Verdampingssnelheid</b>	Niet bepaald.
· <b>Oplosbaarheid in/mengbaarheid met Water:</b>	Volledig mengbaar.
· <b>Verdelingscoëfficiënt: n-octanol/water:</b>	Niet bepaald.
· <b>Viscositeit</b>	
<b>Dynamisch:</b>	Niet bepaald.
<b>Kinematisch:</b>	Niet bepaald.
· <b>Oplosmiddelgehalte:</b>	
<b>Water:</b>	90,0 %
<b>VOC (EG)</b>	0,00 %
<b>Gehalte aan vaste bestanddelen:</b>	2,0 %
· <b>9.2 Overige informatie</b>	Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 10: Stabiliteit en reactiviteit

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

### RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

#### · Indelingsrelevantie LD/LC50-waarden:

**1310-58-3 kaliumhydroxide**

Oraal	LD50	273 mg/kg (rat)
-------	------	-----------------

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt ernstige brandwonden en oogletsel.
- **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstig oogletsel.
- **Sensibilisatie van de luchtwegen/de huid**  
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

(Vervolg op blz. 6)

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### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): B(4) Weinig schadelijk voor in water levende organismen  
Over het algemeen geen gevaar voor water  
Mag niet onverdund of niet geneutraliseerd in oppervlaktewater of in afwateringskanaal geloosd worden.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

- |  |   |
|--|---|
| · <b>14.1 VN-nummer</b>  |   |
| · <b>ADR, IMDG, IATA</b>   | UN1814  |
| · <b>14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN</b> |   |
| · <b>ADR</b>   | 1814 KALIUMHYDROXIDE, OPLOSSING   |
| · <b>IMDG, IATA</b>  | POTASSIUM HYDROXIDE SOLUTION  |
| · <b>14.3 Transportgevarenklasse(n)</b>                                      |   |
| · <b>ADR, IMDG, IATA</b>   |   |
|  |  |
| · <b>klasse</b>  | 8 Bijtende stoffen  |
| · <b>Etiket</b>  | 8   |
| · <b>14.4 Verpakkingsgroep:</b>  |   |
| · <b>ADR, IMDG, IATA</b>   | II  |
| · <b>14.5 Milieugevaren:</b>   | Niet bruikbaar.   |
| · <b>14.6 Bijzondere voorzorgen voor de gebruiker</b>                        | Waarschuwing: Bijtende stoffen  |
| · <b>Gevaarsidentificatienummer (Kemler-getal):</b>                          | 80  |
| · <b>EMS-nummer:</b>   | F-A,S-B   |
| · <b>Segregation groups</b>  | Alkalis   |

(Vervolg op blz. 7)

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(Vervolg van blz. 6)

· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code</b>	Niet bruikbaar.
· <b>Transport/verdere gegevens:</b>	
· <b>ADR</b>	
· <b>Beperkte hoeveelheden (LQ)</b>	1L
· <b>Uitgezonderde hoeveelheden (EQ)</b>	Code: E2 Grootste netto hoeveelheid per binnenverpakking: 30 ml Grootste netto hoeveelheid per buitenverpakking: 500 ml
· <b>Vervoerscategorie</b>	2
· <b>Tunnelbeperkingscode</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>VN "Model Regulation":</b>	UN 1814 KALIUMHYDROXIDE, OPLOSSING, 8, II

## RUBRIEK 15: Regelgeving

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

#### · SZW-lijst van kankerverwekkende stoffen

geen der bestanddelen staat op de lijst.

#### · SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

#### · Lijst van Potentieel Zeer Zorgwekkende Stoffen

geen der bestanddelen staat op de lijst.

#### · Richtlijn 2012/18/EU

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

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3

#### · Nationale voorschriften:

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

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

NL

(Vervolg op blz. 8)

**Veiligheidsinformatieblad**  
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(Vervolg van blz. 7)

**RUBRIEK 16: Overige informatie**

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

**· Relevante zinnen**

H302 Schadelijk bij inslikken.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

**· Afkortingen en acroniemen:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Skin Corr. 1A: Huidcorrosie/irritatie – Categorie 1A

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

NL



# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.04.2020

Révision: 22.04.2020

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

- **1.1 Identificateur de produit**
- **Nom du produit:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Code du produit:** 20156-10, 26204-03
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS05 corrosion

Skin Corr. 1A H314 Provoque des brûlures de la peau et de graves lésions des yeux.  
Eye Dam. 1 H318 Provoque de graves lésions des yeux.

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



GHS05

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**  
hydroxyde de potassium
- **Mentions de danger**  
H314 Provoque des brûlures de la peau et de graves lésions des yeux.
- **Conseils de prudence**  
P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau [ou se doucher].  
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.  
P310 Appeler immédiatement un CENTRE ANTIPOISON/un médecin.  
P321 Traitement spécifique (voir sur cette étiquette).

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(suite de la page 1)

P405 Garder sous clef.  
P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.

- 2.3 Autres dangers
- Résultats des évaluations PBT et vPvB
- PBT: Non applicable.
- vPvB: Non applicable.

### RUBRIQUE 3: Composition/informations sur les composants

- 3.2 Caractérisation chimique: Mélanges
- Description: Mélange des substances mentionnées à la suite avec des additifs non dangereux.

· Composants dangereux:

CAS: 1310-58-3	hydroxyde de potassium	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	>2,5-≤10%
EINECS: 215-181-3			

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

### RUBRIQUE 4: Premiers secours

- 4.1 Description des premiers secours
- Remarques générales:
  - 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.
- Après inhalation: En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- Après contact avec la peau: Laver immédiatement à l'eau et au savon et bien rincer.
- Après contact avec les yeux:
  - Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières et consulter un médecin.
- Après ingestion:
  - Consulter immédiatement un médecin.
  - Boire de l'eau en abondance et donner de l'air frais. Consulter immédiatement un médecin.
- 4.2 Principaux symptômes et effets, aigus et différés Pas d'autres informations importantes disponibles.
- 4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires
  - Pas d'autres informations importantes disponibles.

### RUBRIQUE 5: Mesures de lutte contre l'incendie

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

### RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- 6.1 Précautions individuelles, équipement de protection et procédures d'urgence
  - Porter un équipement de sécurité. Eloigner les personnes non protégées.
- 6.2 Précautions pour la protection de l'environnement: Diluer avec beaucoup d'eau.

(suite page 3)

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- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Utiliser un neutralisant.  
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**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

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

- **8.1 Paramètres de contrôle**

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

<b>1310-58-3 hydroxyde de potassium</b>
---

VLEP	Valeur momentané: 2 mg/m <sup>3</sup>
------	---------------------------------------

- **Remarques supplémentaires:**

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

- **8.2 Contrôles de l'exposition**

- **Équipement de protection individuel:**

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

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

Retirer immédiatement les vêtements souillés ou humectés.

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

Eviter tout contact avec les yeux.

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.

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· **Protection des mains:**



Gants de protection

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

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

· **Matériau des gants**

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

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

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

· **Protection des yeux:**



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

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

· **Indications générales**

· **Aspect:**

<b>Forme:</b>	Liquide
<b>Couleur:</b>	Transparent
<b>Odeur:</b>	Reconnaissable
<b>Seuil olfactif:</b>	Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

<b>Point de fusion/point de congélation:</b>	Non déterminé.
<b>Point initial d'ébullition et intervalle d'ébullition:</b>	100 °C

· **Point d'éclair** Non applicable.

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

· **Température de décomposition:** Non déterminé.

· **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:** Le produit n'est pas explosif.

· **Limites d'explosion:**

<b>Inférieure:</b>	Non déterminé.
<b>Supérieure:</b>	Non déterminé.

· **Pression de vapeur à 20 °C:** 23 hPa

· **Densité à 20 °C:** 1,0208 g/cm<sup>3</sup>

· **Densité relative** Non déterminé.

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· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Eau:</b>	90,0 %
<b>VOC (CE)</b>	0,00 %
· <b>Teneur en substances solides:</b>	2,0 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

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

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

#### · Valeurs LD/LC50 déterminantes pour la classification:

##### 1310-58-3 hydroxyde de potassium

Oral	LD50	273 mg/kg (rat)
------	------	-----------------

- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque des brûlures de la peau et de graves lésions des yeux.
- **Lésions oculaires graves/irritation oculaire**  
Provoque de graves lésions des yeux.
- **Sensibilisation respiratoire ou cutanée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagénicité sur les cellules germinales**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

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# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.04.2020

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**Nom du produit: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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· **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.


### RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:**  
 En général non polluant  
 Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

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

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

### RUBRIQUE 14: Informations relatives au transport

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 Numéro ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="text-align: center;">UN1814</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>  | <p style="text-align: center;">1814 HYDROXYDE DE POTASSIUM EN SOLUTION<br/>POTASSIUM HYDROXIDE SOLUTION</p> |
| <ul style="list-style-type: none"> <li>· <b>14.3 Classe(s) de danger pour le transport</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>  | <p style="text-align: center;">8</p>  |
| <div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Classe</b></li> <li>· <b>Étiquette</b></li> </ul> | <p style="text-align: center;">8 Matières corrosives.<br/>8</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.4 Groupe d'emballage</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="text-align: center;">II</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.5 Dangers pour l'environnement:</b></li> </ul>  | <p style="text-align: center;">Non applicable.</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.6 Précautions particulières à prendre par l'utilisateur</b></li> </ul>  | <p style="text-align: center;">Attention: Matières corrosives.</p>  |

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· <b>Numéro d'identification du danger (Indice Kemler):</b>	80
· <b>No EMS:</b>	F-A,S-B
· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b>	Non applicable.
· <b>Indications complémentaires de transport:</b>	
· <b>ADR</b>	
· <b>Quantités limitées (LQ)</b>	1L
· <b>Quantités exceptées (EQ)</b>	Code: E2 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 500 ml
· <b>Catégorie de transport</b>	2
· <b>Code de restriction en tunnels</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>"Règlement type" de l'ONU:</b>	UN 1814 HYDROXYDE DE POTASSIUM EN SOLUTION, 8, 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** Aucun des composants n'est compris.
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

### RUBRIQUE 16: Autres informations

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

- **Phrases importantes**  
H302 Nocif en cas d'ingestion.  
H314 Provoque des brûlures de la peau et de graves lésions des yeux.
- **Acronymes et abréviations:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent

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*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Toxicité aiguë - voie orale – Catégorie 4*

*Skin Corr. 1A: Corrosion cutanée/irritation cutanée – Catégorie 1A*

*Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1*

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# Sicherheitsdatenblatt

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

- **1.1 Produktidentifikator**
- **Handelsname:** **POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**
- **Artikelnummer:** 20156-10, 26204-03
- **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**



GHS05 Ätzwirkung

Skin Corr. 1A H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

Eye Dam. 1 H318 Verursacht schwere Augenschäden.

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



GHS05

- **Signalwort** Gefahr

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**Handelsname: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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· **Gefahrbestimmende Komponenten zur Etikettierung:**

Kaliumhydroxid

· **Gefahrenhinweise**

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

· **Sicherheitshinweise**

P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen [oder duschen].

P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.

P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).

P405 Unter Verschluss aufbewahren.

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

· **2.3 Sonstige Gefahren**

· **Ergebnisse der PBT- und vPvB-Beurteilung**

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

· **3.2 Chemische Charakterisierung: Gemische**

· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

· **Gefährliche Inhaltsstoffe:**

CAS: 1310-58-3	Kaliumhydroxid	☠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	>2,5-≤10%
EINECS: 215-181-3			

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

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**

· **Allgemeine Hinweise:**

Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

· **Nach Einatmen:** Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

· **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· **Nach Augenkontakt:**

Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.

· **Nach Verschlucken:**

Sofort Arzt aufsuchen.

Reichlich Wasser nachtrinken und Frischluftzufuhr. Unverzüglich Arzt hinzuziehen.

· **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.

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### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

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

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:** Mit viel Wasser verdünnen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Neutralisationsmittel anwenden.  
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.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach 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:**  
Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

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- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
*Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.  
 Beschmutzte, getränkte Kleidung sofort ausziehen.  
 Vor den Pausen und bei Arbeitsende Hände waschen.  
 Berührung mit den Augen vermeiden.  
 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.*

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



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

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

<b>Form:</b>	Flüssigkeit
<b>Farbe:</b>	Klar
- **Geruch:** Wahrnehmbar
- **Geruchsschwelle:** Nicht bestimmt.
- **pH-Wert:** Nicht bestimmt.
- **Zustandsänderung**

<b>Schmelzpunkt/Gefrierpunkt:</b>	Nicht bestimmt.
<b>Siedebeginn und Siedebereich:</b>	100 °C
- **Flammpunkt:** Nicht anwendbar.

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· <b>Entzündbarkeit (fest, gasförmig):</b>	Nicht anwendbar.
· <b>Zersetzungstemperatur:</b>	Nicht bestimmt.
· <b>Selbstentzündungstemperatur:</b>	Das Produkt ist nicht selbstentzündlich.
· <b>Explosive Eigenschaften:</b>	Das Produkt ist nicht explosionsgefährlich.
· <b>Explosionsgrenzen:</b>	
<b>Untere:</b>	Nicht bestimmt.
<b>Obere:</b>	Nicht bestimmt.
· <b>Dampfdruck bei 20 °C:</b>	23 hPa
· <b>Dichte bei 20 °C:</b>	1,0208 g/cm <sup>3</sup>
· <b>Relative Dichte</b>	Nicht bestimmt.
· <b>Dampfdichte</b>	Nicht bestimmt.
· <b>Verdampfungsgeschwindigkeit</b>	Nicht bestimmt.
· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Vollständig mischbar.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
<b>Dynamisch:</b>	Nicht bestimmt.
<b>Kinematisch:</b>	Nicht bestimmt.
· <b>Lösemittelgehalt:</b>	
<b>Wasser:</b>	90,0 %
<b>VOC (EU)</b>	0,00 %
· <b>Festkörpergehalt:</b>	2,0 %
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

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

### ABSCHNITT 11: Toxikologische Angaben

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

· <b>Einstufungsrelevante LD/LC50-Werte:</b>		
<b>1310-58-3 Kaliumhydroxid</b>		
Oral	LD50	273 mg/kg (rat)

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- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenschäden.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: 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:**  
Nicht wassergefährdend.  
Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.
- **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.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

- |  |                              |
|--|------------------------------|
| · <b>14.1 UN-Nummer</b>                            |                              |
| · <b>ADR, IMDG, IATA</b>                           | UN1814                       |
| · <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b> |                              |
| · <b>ADR</b>                                       | 1814 KALIUMHYDROXIDLÖSUNG    |
| · <b>IMDG, IATA</b>                                | POTASSIUM HYDROXIDE SOLUTION |

(Fortsetzung auf Seite 7)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.04.2020

überarbeitet am: 22.04.2020

**Handelsname: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Fortsetzung von Seite 6)

**· 14.3 Transportgefahrenklassen**
**· ADR, IMDG, IATA**


· Klasse	8 Ätzende Stoffe
· Gefahrzettel	8

**· 14.4 Verpackungsgruppe**
**· ADR, IMDG, IATA** II

**· 14.5 Umweltgefahren:** Nicht anwendbar.

**· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender**

Achtung: Ätzende Stoffe

**· Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl):**

80

**· EMS-Nummer:**

F-A,S-B

**· Segregation groups**

Alkalis

**· Stowage Category**

A

**· Segregation Code**

SG35 Stow "separated from" SGG1-acids

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

**· Transport/weitere Angaben:**
**· ADR**
**· Begrenzte Menge (LQ)**

1L

**· Freigestellte Mengen (EQ)**

Code: E2

Höchste Nettomenge je Innenverpackung: 30 ml

Höchste Nettomenge je Außenverpackung: 500 ml

**· Beförderungskategorie**

2

**· Tunnelbeschränkungscode**

E

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

1L

**· Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

**· UN "Model Regulation":**

UN 1814 KALIUMHYDROXIDLÖSUNG, 8, II

### ABSCHNITT 15: Rechtsvorschriften

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

**· VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3

**· Nationale Vorschriften:**
**· Wassergefährdungsklasse:** Im allgemeinen nicht wassergefährdend.

(Fortsetzung auf Seite 8)

# Sicherheitsdatenblatt

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(Fortsetzung von Seite 7)

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

### ABSCHNITT 16: Sonstige Angaben

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

· **Relevante Sätze**

H302 Gesundheitsschädlich bei Verschlucken.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

· **Abkürzungen und Akronyme:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Akute Toxizität - oral – Kategorie 4

Skin Corr. 1A: Hautreizende/-ätzende Wirkung – Kategorie 1A

Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1

DE



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

Stampato il: 22.04.2020

Revisione: 22.04.2020

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

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Articolo numero:** 20156-10, 26204-03
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [info@emsdiasum.com](mailto:info@emsdiasum.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: [www.sichim.com](http://www.sichim.com)
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS05 corrosione

Skin Corr. 1A H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.  
Eye Dam. 1 H318 Provoca gravi lesioni oculari.

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



GHS05

- **Avvertenza Pericolo**
- **Componenti pericolosi che ne determinano l'etichettatura:**  
idrossido di potassio
- **Indicazioni di pericolo**  
H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

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IT

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

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**Denominazione commerciale: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(Segue da pagina 1)

· **Consigli di prudenza**

P303+P361+P353 **IN CASO DI CONTATTO CON LA PELLE (o con i capelli):** togliersi di dosso immediatamente tutti gli indumenti contaminati. Sciacquare la pelle [o fare una doccia].

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.

P310 **Contattare immediatamente un CENTRO ANTIVELENI/un medico.**

P321 **Trattamento specifico (vedere su questa etichetta).**

P405 **Conservare sotto chiave.**

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

· **2.3 Altri pericoli**

· **Risultati della valutazione PBT e vPvB**

· **PBT:** Non applicabile.

· **vPvB:** Non applicabile.

**SEZIONE 3: Composizione/informazioni sugli ingredienti**

· **3.2 Caratteristiche chimiche: Miscela**

· **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.

· **Sostanze pericolose:**

CAS: 1310-58-3

idrossido di potassio

⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302

>2,5-≤10%

EINECS: 215-181-3

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

**SEZIONE 4: Misure di primo soccorso**

· **4.1 Descrizione delle misure di primo soccorso**

· **Indicazioni generali:**

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.

· **Inalazione:** Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

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

· **Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte e consultare il medico.

· **Ingestione:**

Chiamare subito il medico.

Bere abbondante acqua e sostare in zona ben areata. Richiedere immediatamente l'intervento del medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

**SEZIONE 5: Misure antincendio**

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

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**Scheda di dati di sicurezza**  
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(Segue da pagina 2)

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

### **SEZIONE 6: Misure in caso di rilascio accidentale**

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**  
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:** Diluire abbondantemente con acqua.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**  
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).  
Utilizzare mezzi di neutralizzazione.  
Smaltimento del materiale contaminato conformemente al punto 13.  
Provvedere ad una sufficiente areazione.
- **6.4 Riferimento ad altre sezioni**  
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.  
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.  
Per informazioni relative allo smaltimento vedere Capitolo 13.

### **SEZIONE 7: Manipolazione e immagazzinamento**

- **7.1 Precauzioni per la manipolazione sicura**  
Accurata ventilazione/aspirazione nei luoghi di lavoro.  
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

### **SEZIONE 8: Controllo dell'esposizione/protezione individuale**

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

#### **8.1 Parametri di controllo**

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

**1310-58-3 idrossido di potassio**

TWA	Limite Ceiling: 2 mg/m <sup>3</sup>
-----	-------------------------------------

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

#### **8.2 Controlli dell'esposizione**

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

(continua a pagina 4)

IT

**Scheda di dati di sicurezza**  
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**Denominazione commerciale: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

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· **Maschera protettiva:**

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

· **Guanti protettivi:**



Guanti protettivi

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

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

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

· **Materiale dei guanti**

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

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

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

· **Occhiali protettivi:**



Occhiali protettivi a tenuta

**SEZIONE 9: Proprietà fisiche e chimiche**

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

· **Indicazioni generali**

· **Aspetto:**

**Forma:** Liquido

**Colore:** Chiaro

· **Odore:** Percettibile

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

**Punto di fusione/punto di congelamento:** Non definito.

**Punto di ebollizione iniziale e intervallo di ebollizione:** 100 °C

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

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non esplosivo.

· **Limiti di infiammabilità:**

**Inferiore:** Non definito.

**Superiore:** Non definito.

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**Scheda di dati di sicurezza**  
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· <b>Tensione di vapore a 20 °C:</b>	23 hPa
· <b>Densità a 20 °C:</b>	1,0208 g/cm <sup>3</sup>
· <b>Densità relativa</b>	Non definito.
· <b>Densità di vapore:</b>	Non definito.
· <b>Velocità di evaporazione</b>	Non definito.
· <b>Solubilità in/Miscibilità con acqua:</b>	Completamente miscibile.
· <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b>	Non definito.
· <b>Viscosità:</b>	
<b>Dinamica:</b>	Non definito.
<b>Cinematica:</b>	Non definito.
· <b>Tenore del solvente:</b>	
<b>Acqua:</b>	90,0 %
<b>VOC (CE)</b>	0,00 %
· <b>Contenuto solido:</b>	2,0 %
· <b>9.2 Altre informazioni</b>	Non sono disponibili altre informazioni.

### SEZIONE 10: Stabilità e reattività

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

### SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

· **Valori LD/LC50 rilevanti per la classificazione:**

**1310-58-3 idrossido di potassio**

Orale	LD50	273 mg/kg (rat)
-------	------	-----------------

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca gravi lesioni oculari.
- **Sensibilizzazione respiratoria o cutanea**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

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


### SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
Generalmente non pericoloso  
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

### SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

- |   |   |
|---|---|
| · <b>14.1 Numero ONU</b>  |   |
| · <b>ADR, IMDG, IATA</b>  | UN1814                                  |
| · <b>14.2 Nome di spedizione dell'ONU</b>   |   |
| · <b>ADR</b>  | 1814 IDROSSIDO DI POTASSIO IN SOLUZIONE |
| · <b>IMDG, IATA</b>   | POTASSIUM HYDROXIDE SOLUTION            |
| · <b>14.3 Classi di pericolo connesso al trasporto</b>                              |   |
| · <b>ADR, IMDG, IATA</b>  |   |
|  |   |
| · <b>Classe</b>   | 8 Materie corrosive                     |
| · <b>Etichetta</b>  | 8                                       |
| · <b>14.4 Gruppo di imballaggio</b>   |   |
| · <b>ADR, IMDG, IATA</b>  | II                                      |

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· <b>14.5 Pericoli per l'ambiente:</b>	Non applicabile.
· <b>14.6 Precauzioni speciali per gli utilizzatori</b>	Attenzione: Materie corrosive
· <b>N° identificazione pericolo (Numero Kemler):</b>	80
· <b>Numero EMS:</b>	F-A,S-B
· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>	Non applicabile.
· <b>Trasporto/ulteriori indicazioni:</b>	
-----	
· <b>ADR</b>	
· <b>Quantità limitate (LQ)</b>	1L
· <b>Quantità esenti (EQ)</b>	Codice: E2
	Quantità massima netta per imballaggio interno: 30 ml
	Quantità massima netta per imballaggio esterno: 500 ml
· <b>Categoria di trasporto</b>	2
· <b>Codice di restrizione in galleria</b>	E
-----	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1814 IDROSSIDO DI POTASSIO IN SOLUZIONE, 8, II

### SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3
- **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

### SEZIONE 16: Altre informazioni

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

- **Frasei rilevanti**

H302 Nocivo se ingerito.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

- **Abbreviazioni e acronimi:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

(continua a pagina 8)

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

Stampato il: 22.04.2020

Revisione: 22.04.2020

**Denominazione commerciale: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

Skin Corr. 1A: Corrosione/irritazione della pelle – Categoria 1A

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

(Segue da pagina 7)

IT



# 물질안전보건자료 GHS에 따라라다

인쇄일자: 2020.04.22

개정: 2020.04.22

## 1 화학제품과 회사에 관한 정보

제품제품재명별자

- **제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

- **상품번호: 20156-10, 26204-03**

해당해당해당물질이나 혼합물(약)관련해당위험도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.

- **제품의 권고 용도와 사용 용도에 대한 제한사항** 실화 학품

- **안전데이터표(Safety Data Sheet)내 공급업체 관련사항** 정보

- **제조자/수입자/유통업체** 정보정보

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

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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** (특정 위험 회피 가능) duct safety department

- **비상연락 전화번호:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

## 2 유해성·위험성

- **순물질 또는 혼합물(약) 분류분류**



부식

피부 부식성/피부 자극성 - 구분 1 H314 피부에 심한 화상과 눈에 손상을 일으킴

심한 눈 손상성/눈 자극성 - 구분 1 H318 눈에 심한 손상을 일으킴

- **라벨표가요소요소**

- **라벨라벨라벨요소**

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

- **그림문자**



GHS05

(2 쪽에 계속)

**물질안전보건자료**  
GHS에 따라라따

인쇄일자: 2020.04.22

개정: 2020.04.22

**제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(1 쪽부터 계속)

· **신호어** 위험

· **상표상에 명확히 위험성이 표시된 성분:**

수산화 칼륨

유해 **유해위험문구**

피부에 심한 화상과 눈에 손상을 일으킴

· **예방조치** 문구문구

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으십시오/샤워하십시오

· 눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면 콘택트렌즈를 제거하십시오. 계속 씻으십시오.

즉시 독성물질센터/병원 연락 필요.

(라벨 참조) 처치를 하십시오.

밀봉하여 저장하십시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.

기타기타 **유해성**

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

· PBT(잔류성, 생물농축성) 물질이 포함되어 있지 않음.

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

**3 구성성분의 명칭 및 함유량**

· **화학적 특성:** 혼합물

설명설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· **위험요소**

1310-58-3 수산화 칼륨



피부 부식성/피부 자극성 - 구분 1, H314; ! 급성 독성 - 경구 - 구분 4, H302

>2.5-≤10%

**4 응급조치 요령**

· **응급조치요령 내용** 내용

· **일반정보** 정보

이제품에 의해 오염된 의상은 즉시 제거한다.

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

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

· **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.

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

· **먹었을 때:**

즉시 의사의 도움을 구한다.

물을 충분히 마시고 신선한 공기를 쐬다. 즉시 의사의 도움을 구한다.

기타기타 **각각의 주의사항:**

가장가장 중요하다고 믿어 의심치 않는 영향 영향적인 정보가 존재하지 않습니다.

· **즉각적인 의료처리 및 특별치료가 필요함을 시사하는 징후** 징후적인 정보가 존재하지 않습니다.

**5 폭발·화재시 대처방법**

· **소화제**

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

· **본 화학물질이나 혼합물에서 발생할 수 있는 특별한 위험성** 추가적인 정보가 존재하지 않습니다.

(3 쪽에 계속)

# 물질안전보건자료

## GHS에 따라 라다

인쇄일자: 2020.04.22

개정: 2020.04.22

**제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

· 소방관에게 대한 대피고사항  
 화재 화학물질 취급 작업 보호구 및 예방조치: 특별한 조치가 필요없음.

(2 쪽부터 계속)

### 6 누출 사고 시 대처방법

· 개인적 예방조치, 보호장비 및 응급처치 절차 철저한 장비 착용하고, 무방비 의 사람은 격리시킨다.  
 환경 환경보전 대책 조치: 많은 물로 희석시킨다.  
 밀폐 밀폐 용기 화학 물질 보관 소재 소재  
 액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.  
 중성제를 사용한다.  
 항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
 충분한 환기가 되도록 한다.  
 식염수 염산 염소 참조  
 안전 관리에 대한 정보는 제7 장 을 참고하시오.  
 개인 보호 장비에 대한 정보는 제8 장 을 참고하시오.  
 쓰레기 처리에 대한 정보는 제13 장 을 참고하시오.

### 7 취급 및 저장방법

취급 취급 취급  
 안전 안전 작업장 위한 예방 조치  
 작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.  
 연무질이 형성되는 것을 피한다.  
 화재 화학물질 취급 작업 보호구 및 예방조치: 특별한 조치가 필요없음.  
 혼합 위험성 혼합 위험성 조건  
 보관 보관 보관  
 · 안전 방 저장 방법 특별한 요구사항이 없음.  
 · 하 나 용 공 용 공 용 보 시 설 에 대 한 보 호 장 비 용 보 장 비 없 음  
 · 보 관 조 건 에 관 한 추 가 정 보 정 보 용 기 를 새 지 않 게 밀 폐 한 채 보 관 한 다.  
 · 구 체 적 최 종 최 종 자 추 가 적 인 정 보 가 존 재 하 지 않 습 니 다.

### 8 노출방지 및 개인보호구

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

통제 통제 통제 변수

· 화학물질의 노출기준, 생물학적 노출기준 등:	
1310-58-3 수산화칼륨칼륨	
TLV (KR)	최고노출기준: 2 mg/m <sup>3</sup>
REL (US)	최고노출기준: 2 mg/m <sup>3</sup>
TLV (US)	최고노출기준: 2 mg/m <sup>3</sup>

· 추가 정보 정보 소 할 당 시 에 유 효 한 목 록 을 기 초 로 사 용 했 다.

노출 통제 통제 통제

개인 개인 보호구

· 일반적 보호 조치 및 위생 조치:  
 식료품, 음료수와 사료로부터 멀리 떨어져 뜨려 놓는다.  
 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.  
 휴식 전 이 나 작 업 이 끝 날 때 마 다 손 을 씻 는 다.  
 눈과의 접촉을 피한다.

(4 쪽에 계속)

물질안전보건자료  
GHS에 따라라따

인쇄일자: 2020.04.22

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(3 쪽부터 계속)

눈과 피부와의 접촉은 피한다.

**호흡기 보호보호**

단시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

**보습 보호보호**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.

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

투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

**장갑 의재료**

적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도 다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

· **장갑 재료의 투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

**보습 보호보호**



확조이는보안경

9 물리화학적 특성

기본 ~~개요~~ 물리화학적 특성에 대한 정보

· <b>일반정보</b>	
외형외형외형	
· 물량계상 상태	액체
· 색:	밝은
냄새냄새냄새	인지할 수 있는
· 후각역치	알맞지 않다.
· pH:	알맞지 않다.
· <b>상태변화</b>	
· 녹는점/어는점:	맞지 않는
초기초기 <del>끓는 점</del> 끓는 점과 <del>끓는 점</del> 범위 범위	100 °C
· 인화점:	해당 사항 없음.
· 인화성 고체/기체/기체	해당 사항 없음.
분해 분해 온도	알맞지 않다.
· 자기점화:	이 제품은 자연발화성이 없다.
· 폭발위험:	이 제품은 폭발위험성이 없다
인화 안정 <del>인화성</del> 폭발 위험 <del>상한</del> 상한	하한
아래로:	알맞지 않다.
위로 위로 위로	알맞지 않다.
· 증기압 의 경우 20 °C:	23 hPa
밀도 밀도 <del>밀도</del> 의 경우 20 °C:	1.0208 g/cm <sup>3</sup>

(5 쪽에 계속)

# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2020.04.22

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(4 쪽부터계속)

비중비중비중	알맞지않다.
· 중기밀도:	알맞지않다.
중발중발중발속도	알맞지않다.
· 용해도:	
물:	완전히혼합할수있는
· n 옥탄올/물 분배계수:	알맞지않다.
점도점도점도	
역학성:	알맞지않다.
동점성:	알맞지않다.
· 용매내용물	
물:	90.0 %
VOC (EU)	0.00 %
고체양함량함량	2.0 %
기타정보정보	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 위험 반응의 가능성 / 피해야할 조건 조건에따라사용할경우해체는없다
- 유해반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해야할 조건 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 혼합 혼합 혼합 혼합 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는 분해물들은 알려지지 않았다.

### 11 독성에 관한 정보

· 독성학적 영향에 대한 정보  
급성독성독성독성

· LD/LC50-수 제에 따른 분류
1310-58-3 수 제에 따른 분류
구강의 LD50 273 mg/kg (rat)

· 입체적 자극 효과  
피부 피부 피부 또는 자극 성: 피부와 점막에 강한 부식 작용.

심한 심한 심한 심한 심한 자극 성:

- 강한 부식 작용
- 심각한 안구상처의 위험이 있는 강한 자극

· 감각 화: 민감한 영향이 없는 것으로 알려져 있다.

· 추가적인 독성에 관한 정보

이제 제품은 유럽 공동체의 공동 분류 체계의 합법적인 절차에 근거하여 최근에 발효된 원고에서 아래 위험들의 의사 전 준비에 대하여 제시하고 있다.

- 건강에 해로운
- 부식 작용의

자극적인

삼킬 경우 식도나 위 등의 내장 기관 벽에 상처를 주는 위험과 마찬가지로 입 주변이나 구강에 강한 부식 작용을 한다

KR

(6 쪽에 계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2020.04.22

개정: 2020.04.22

**제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(5 쪽부터 계속)

## 12 환경에 미치는 영향

### 독성독성독성

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

### 일반 열안정성 특징

- 일반적으로 수질 오염이 되지 않는다.
- 희석시키지 않은 채 또는 중화시키지 않은 채 하수 또는 배수로 배출하지 않게 해야 한다.
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질) 평가 결과** 당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과** 당사항 없음.
- 기타 기타 **특수** 추가적인 정보가 존재하지 않습니다.

## 13 폐기시 주의사항

- **폐기물 처리 방법**
- 권고 권고 **환경** 쓰레기와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.
- **비위생적 포장 포장**
- 권고 권고 **환경** 의지침에 입각한 쓰레기 처리.
- **추천 세정제:** 경우에 따라서 세제가 첨가된 물

## 14 운송에 필요한 정보

### 유엔 유엔 번호

- ADR, IMDG, IATA UN1814

### 적정적정명명

- ADR 1814 POTASSIUM HYDROXIDE SOLUTION
- IMDG, IATA POTASSIUM HYDROXIDE SOLUTION

### 교통 교통 위험 위험

- ADR, IMDG, IATA



### 등급 등급 등급

- **위험 물질 라벨 라벨** 8 부식 작용하는 물질
- 8

### 용기 등급

- ADR, IMDG, IATA II

### 환경적 유해물질:

- 해당사항 없음.

### 이용자 특별 예방 조치

- 경고: 부식 작용하는 물질

### 위험 위험 코드

- 80

### 분류 번호 번호

- F-A,S-B

### Segregation groups

- Alkalis

(7 쪽에 계속)

# 물질안전보건자료

GHS에 따라라따

인쇄일자: 2020.04.22

개정: 2020.04.22

**제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(6 쪽부터 계속)

· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 운송	해당사항 없음.
· 운송/추가정보	
· ADR 한정량제한수량(수량)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 운송 위험 분류 구분 터널 제한 수량 코드	2 E
· IMDG · Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN번호/위험등급/유체	UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

## 15 법적 규제현황

· 산업안전보건법에 의한 위생위생규제

제조제조제품금지물질:

어떠한내용물도 목록화되어있지않다

· 허가대상물질:

어떠한내용물도 목록화되어있지않다

· 관리대상유해물질:

1310-58-3 수산화 칼륨

· 작업환경측정 대상 유해인자

1310-58-3 수산화 칼륨

1C7

· 특수건강 집광 대상 유해인자

어떠한내용물도 목록화되어있지않다

해당 해당 수량 제한 또는 혼합 물에 대한 안전보건규제사항을 기술한 법률

· Korean Existing Chemical Inventory

7732-18-5 물

KE-35400

1310-58-3 수산화 칼륨

KE-29139

· 화학물질관리법

· 사고대비물질

어떠한내용물도 목록화되어있지않다

· 금지물질

어떠한내용물도 목록화되어있지않다

· 제한물질

어떠한내용물도 목록화되어있지않다

(8 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

인쇄일자: 2020.04.22

개정: 2020.04.22

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(7 쪽부터 계속)

**· 유독물질**

1310-58-3 수산화 칼륨

**· 허가물질**

1310-58-3 수산화 칼륨

**등록명목명호번호 선제대상 화학물질**

7732-18-5 물

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

어떠한내용물도목록화되어있지않다

**· 중점관리물질(양) 지정지정**

**· 표1 중점관리물질(제관전)관련관련**

어떠한내용물도목록화되어있지않다

**· 표2 중점관리물질(제관전)관련관련**

어떠한내용물도목록화되어있지않다

**· 라벨 라벨 요소**

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

**· 그림문자**



GHS05

**· 신호어 위험**

**· 상표상에명확히위험성이표시된성분:**

수산화 칼륨

**유해 유해성질/유해성질 문구**

피부에 심한 화상과 눈에 손상을 일으킴

**· 예방 조차 문구문구**

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗거나 제거하십시오. 피부를 물로 씻으시오/샤워하십시오

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

즉시 독성물질센터/병원 연락 필요.

(라벨 참조) 처치를 하시오.

밀봉하여 저장 하시오.

(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기 하시오.

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

### 16 그 밖의 참고사항

이 보고서는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다, 하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

최초 최초 작성 일자: 2020.04.22

개정 개정 일자: 1 / 2020.04.22

**· 약어와 두문자어:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

(9 쪽에 계속)



# 물질안전보건자료

## GHS에 따라라따

인쇄일자: 2020.04.22

개정: 2020.04.22

**제품명: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

(8 쪽부터계속)

VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

KR

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.04.2020

Revisión: 22.04.2020

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

- **1.1 Identificador del producto**
- **Nombre comercial:** POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION
- **Número del artículo:** 20156-10, 26204-03
- **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**



GHS05 corrosión

Skin Corr. 1A H314 Provoca quemaduras graves en la piel y lesiones oculares graves.  
Eye Dam. 1 H318 Provoca lesiones oculares graves.

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



GHS05

- **Palabra de advertencia** Peligro
- **Componentes peligrosos a indicar en el etiquetaje:**  
hidróxido de potasio
- **Indicaciones de peligro**  
H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

( se continua en página 2 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

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**Nombre comercial: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

( se continua en página 1 )

· **Consejos de prudencia**

P303+P361+P353 **EN CASO DE CONTACTO CON LA PIEL (o el pelo):** Quitar inmediatamente toda la ropa contaminada. Enjuagar la piel con agua [o ducharse].

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.

P310 Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.

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

P405 Guardar bajo llave.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· **2.3 Otros peligros**

· **Resultados de la valoración PBT y mPmB**

· **PBT:** No aplicable.

· **mPmB:** No aplicable.

### SECCIÓN 3: Composición/información sobre los componentes

· **3.2 Caracterización química: Mezclas**

· **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· **Componentes peligrosos:**

CAS: 1310-58-3	hidróxido de potasio	☠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	>2,5-≤10%
EINECS: 215-181-3			

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

### SECCIÓN 4: Primeros auxilios

· **4.1 Descripción de los primeros auxilios**

· **Instrucciones generales:**

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.

· **En caso de inhalación del producto:**

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

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

· **En caso de con los ojos:**

Limpia los ojos abiertos durante varios minutos con agua corriente y consultar un médico.

· **En caso de ingestión:**

Consultar inmediatamente un médico.

Beber mucha agua a respirar aire fresco. Solicitar asistencia médica inmediatamente.

· **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.

( se continua en página 3 )

# Ficha de datos de seguridad

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**Nombre comercial: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

( se continua en página 2 )

- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

### SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**  
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:** Diluir con mucha agua.
- **6.3 Métodos y material de contención y de limpieza:**  
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).  
Utilizar un neutralizador.  
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.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

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

### SECCIÓN 8: Controles de exposición/protección individual

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

#### · 8.1 Parámetros de control

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

**1310-58-3 hidróxido de potasio**

LEP | Valor de corta duración: 2 mg/m<sup>3</sup>

- **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.  
Evitar el contacto con los ojos.  
Evitar el contacto con los ojos y la piel.

( se continua en página 4 )

# Ficha de datos de seguridad

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**Nombre comercial: POTASSIUM HYDROXIDE, 10% AQUEOUS SOLUTION**

( se continua en página 3 )

· **Protección respiratoria:**

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

· **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

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

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

· **Protección de ojos:**



Gafas de protección herméticas

### SECCIÓN 9: Propiedades físicas y químicas

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

· **Datos generales**

· **Aspecto:**

**Forma:** Líquido

**Color:** Claro

· **Olor:** Perceptible

· **Umbral olfativo:** No determinado.

· **valor pH:** No determinado.

· **Cambio de estado**

**Punto de fusión/punto de congelación:** Indeterminado.

**Punto inicial de ebullición e intervalo de ebullición:** 100 °C

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

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

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

· **Temperatura de auto-inflamación:** El producto no es autoinflamable.

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

· **Límites de explosión:**

**Inferior:** No determinado.

**Superior:** No determinado.

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# Ficha de datos de seguridad

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· <b>Presión de vapor a 20 °C:</b>	23 hPa
· <b>Densidad a 20 °C:</b>	1,0208 g/cm <sup>3</sup>
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Tasa de evaporación:</b>	No determinado.
· <b>Solubilidad en / miscibilidad con agua:</b>	Completamente mezclable.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b>	
· <b>Dinámica:</b>	No determinado.
· <b>Cinemática:</b>	No determinado.
· <b>Concentración del disolvente:</b>	
· <b>Agua:</b>	90,0 %
· <b>VOC (CE)</b>	0,00 %
· <b>Contenido de cuerpos sólidos:</b>	2,0 %
· <b>9.2 Otros datos</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

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

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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

**1310-58-3 hidróxido de potasio**

Oral	LD50	273 mg/kg (rat)
------	------	-----------------

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
Provoca quemaduras graves en la piel y lesiones oculares graves.
- **Lesiones o irritación ocular graves**  
Provoca lesiones oculares graves.
- **Sensibilización respiratoria o cutánea**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

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- **Toxicidad específica en determinados órganos (STOT) – exposición única**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.


### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Por regla general, no es peligroso para el agua  
En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.
- **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.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN1814
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1814 HIDRÓXIDO POTÁSICO EN SOLUCIÓN
- **IMDG, IATA** POTASSIUM HYDROXIDE SOLUTION
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG, IATA**
- 
- **Clase** 8 Materias corrosivas
- **Etiqueta** 8
- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** II

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· <b>14.5 Peligros para el medio ambiente:</b>	No aplicable.
· <b>14.6 Precauciones particulares para los usuarios</b>	Atención: Materias corrosivas
· <b>Número de identificación de peligro (Número Kemler):</b>	80
· <b>Número EMS:</b>	F-A,S-B
· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG35 Stow "separated from" SGG1-acids
· <b>14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC</b>	No aplicable.
· <b>Transporte/datos adicionales:</b>	
· <b>ADR</b>	
· <b>Cantidades limitadas (LQ)</b>	1L
· <b>Cantidades exceptuadas (EQ)</b>	Código: E2 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 500 ml
· <b>Categoría de transporte</b>	2
· <b>Código de restricción del túnel</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>"Reglamentación Modelo" de la UNECE:</b>	UN 1814 HIDRÓXIDO POTÁSICO EN SOLUCIÓN, 8, II

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones:** 3
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### SECCIÓN 16: Otra información

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

#### · Frases relevantes

H302 Nocivo en caso de ingestión.

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

#### · Abreviaturas y acrónimos:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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*CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 4: Toxicidad aguda - oral – Categoría 4**Skin Corr. 1A: Corrosión o irritación cutáneas – Categoría 1A**Eye Dam. 1: Lesiones oculares graves o irritación ocular – Categoría 1*

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