

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/07/2022

Reviewed on 01/07/2022

1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Article number:** 20103-4
- **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**



GHS03 Flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidizer.



GHS06 Skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

Repr. 1B H360 May damage fertility or the unborn child.

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



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Label elements**

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

· **Hazard pictograms**



GHS03 GHS05 GHS06 GHS08

· **Signal word** *Danger*

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidizer.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

· **Precautionary statements**

Obtain special instructions before use.

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

Keep away from heat.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles.

Do not breathe dusts or mists.

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: 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.

IF exposed or concerned: Get medical advice/attention.

Specific treatment is urgent (see on this label).

Get medical advice/attention if you feel unwell.

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

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

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

Store locked up.

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

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· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

7778-50-9	Potassium Dichromate	>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.

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

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

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. 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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- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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:**

7778-50-9	Potassium Dichromate	0.42 mg/m ³
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- **PAC-2:**

7778-50-9	Potassium Dichromate	7.4 mg/m ³
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- **PAC-3:**

7778-50-9	Potassium Dichromate	44 mg/m ³
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7 Handling and storage

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

8 Exposure controls/personal protection

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Control parameters**

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

7778-50-9 Potassium Dichromate

PEL	Long-term value: 0.005* mg/m ³ Ceiling limit value: 0.1** mg/m ³ *as Cr(VI) **as CrO ₃ ; see 29 CFR 1910.1026
REL	Long-term value: 0.0002 mg/m ³ as Cr; See Pocket Guide Apps. A and C
TLV	Short-term value: 0.0005 mg/m ³ Long-term value: 0.0002 mg/m ³ as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN

· **Ingredients with biological limit values:**

7778-50-9 Potassium Dichromate

BEI	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- 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.

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· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Orange
Odor:	Odorless
Odor threshold:	Not determined.

· **pH-value at 20 °C (68 °F):** 4

· **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)

· **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 (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.0838 g/cm³ (9.04431 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

· **Solvent content:**

Water: 95.0 %

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VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	5.0 %
Other information	No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

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

LD/LC50 values that are relevant for classification:		
7778-50-9 Potassium Dichromate		
Oral	LD50	190 mg/kg (mouse)

- **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:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Very toxic
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.
The product can cause inheritable damage.

- **Carcinogenic categories**

IARC (International Agency for Research on Cancer)		
7778-50-9	Potassium Dichromate	I
NTP (National Toxicology Program)		
7778-50-9	Potassium Dichromate	K

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

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.
 Danger to drinking water if even extremely small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

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

14 Transport information

- | | |
|----------------------------------|--|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN2810 |
| · UN proper shipping name | |
| · DOT | Toxic, liquids, organic, n.o.s. (Potassium Dichromate) |
| · ADR | 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS |
| · IMDG | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT |
| · IATA | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate) |

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Transport hazard class(es)**

· **DOT**



· **Class** 6.1 Toxic substances
 · **Label** 6.1

· **ADR, IMDG**



· **Class** 6.1 Toxic substances
 · **Label** 6.1

· **IATA**



· **Class** 6.1 Toxic substances
 · **Label** 6.1

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

· **Environmental hazards:** Product contains environmentally hazardous substances: Potassium Dichromate
 · **Marine pollutant:** Symbol (fish and tree)
 · **Special marking (ADR):** Symbol (fish and tree)

· **Special precautions for user** Warning: Toxic substances
 · **Hazard identification number (Kemler code):** 60
 · **EMS Number:** F-A,S-A
 · **Stowage Category** A
 · **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**
 · **Quantity limitations** On passenger aircraft/rail: 60 L
 On cargo aircraft only: 220 L

· **ADR**
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

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- **IMDG**

- **Limited quantities (LQ)**

5L

- **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- **UN "Model Regulation":**

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICHROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

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):**

7778-50-9 Potassium Dichromate

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

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

7778-50-9 Potassium Dichromate

- **Proposition 65**

- **Chemicals known to cause cancer:**

7778-50-9 Potassium Dichromate

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

7778-50-9 Potassium Dichromate

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

7778-50-9 Potassium Dichromate

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

7778-50-9 Potassium Dichromate

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

7778-50-9 Potassium Dichromate

A(inh), D(oral), K/L(inh), CBD(oral)

- **TLV (Threshold Limit Value)**

7778-50-9 Potassium Dichromate

AI

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

7778-50-9 Potassium Dichromate

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

- **Hazard pictograms**



GHS03

GHS05

GHS06

GHS08

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Signal word** *Danger*

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidizer.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

· **Precautionary statements**

Obtain special instructions before use.

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

Keep away from heat.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles.

Do not breathe dusts or mists.

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

[In case of inadequate ventilation] wear respiratory protection.

If swallowed: 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.

IF exposed or concerned: Get medical advice/attention.

Specific treatment is urgent (see on this label).

Get medical advice/attention if you feel unwell.

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

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

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

Store locked up.

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

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

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

16 Other information

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Contact:**

· **Date of preparation / last revision** 01/07/2022 / -

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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

BEI: Biological Exposure Limit

Ox. Liq. 2: Oxidizing liquids – Category 2

Acute Tox. 2: Acute toxicity – Category 2

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

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

Repr. 1B: Reproductive toxicity – Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Safety Data Sheet

according to WHS Regulations

Printing date 07.01.2022

Revision: 07.01.2022

1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Article number:** 20103-4
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com
- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS03 flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidiser.



GHS06 skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

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according to WHS Regulations

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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Repr. 1B H360 May damage fertility or the unborn child.

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



GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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

· **Label elements**

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

· **Hazard pictograms**



GHS03



GHS05



GHS06



GHS08

· **Signal word** Danger

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidiser.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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Obtain special instructions before use.

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

Keep away from heat.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles.

Do not breathe dusts or mists.

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

Wear respiratory protection.

IF SWALLOWED: 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.

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Safety Data Sheet according to WHS Regulations

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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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.

IF exposed or concerned: Get medical advice/attention.

Specific treatment is urgent (see on this label).

Get medical advice/attention if you feel unwell.

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

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Wash contaminated clothing before reuse.

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

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

Store locked up.

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

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition and Information on Ingredients

· **Chemical characterisation: Mixtures**

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

· **Dangerous components:**

7778-50-9	Potassium Dichromate	>2.5-≤10%
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· **SVHC**

7778-50-9	Potassium Dichromate
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· **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.

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

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

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. 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.

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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:** Mouth respiratory protective device.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

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

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

7778-50-9 Potassium Dichromate

WES	Long-term value: 0.05 mg/m ³
	Sen, as Cr

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

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: Orange

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 4

- **Change in condition**

Melting point/freezing point: 0 °C

Initial boiling point and boiling range: 100 °C

- **Flash point:** Not applicable.

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

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· 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:	1.0838 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	95.0 %
VOC (EC)	0.00 %
Solids content:	5.0 %
· Other information	No further relevant information available.

10 Stability and Reactivity

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

11 Toxicological Information

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

· LD/LC50 values relevant for classification:		
7778-50-9 Potassium Dichromate		
Oral	LD50	190 mg/kg (mouse)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.

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- **Serious eye damage/irritation**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation**
Sensitisation possible through inhalation.
Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Corrosive
Irritant
Very toxic
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.
The product can cause inheritable damage.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Muta. 1B, Carc. 1B, Repr. 1B

12 Ecological Information

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

13 Disposal considerations

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	UN2810
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA 	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
<ul style="list-style-type: none"> · Transport hazard class(es) · ADG, IMDG 	<div style="display: flex; align-items: center; gap: 10px;">   </div>
<ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances. 6.1
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; gap: 10px;">  </div>
<ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances. 6.1
<ul style="list-style-type: none"> · Packing group · ADG, IMDG, IATA 	III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADG): 	Product contains environmentally hazardous substances: Potassium Dichromate Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code 	Warning: Toxic substances. 60 F-A,S-A A SW2 Clear of living quarters.
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.

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· Transport/Additional information:

· ADG

- Limited quantities (LQ)
- Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- Transport category
- Tunnel restriction code

2

E

· IMDG

- Limited quantities (LQ)
- Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- UN "Model Regulation":

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICHROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· Australian Inventory of Industrial Chemicals

All ingredients are listed.

· Standard for the Uniform Scheduling of Medicines and Poisons

None of the ingredients is listed.

· 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



GHS03

GHS05

GHS06

GHS08

- Signal word *Danger*

· Hazard-determining components of labelling:

Potassium Dichromate

· Hazard statements

May intensify fire; oxidiser.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Precautionary statements**

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat.
 Keep/Store away from clothing/combustible materials.
 Take any precaution to avoid mixing with combustibles.
 Do not breathe dusts or mists.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wear respiratory protection.
 IF SWALLOWED: 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.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment is urgent (see on this label).
 Get medical advice/attention if you feel unwell.
 If skin irritation or rash occurs: Get medical advice/attention.
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 Wash contaminated clothing before reuse.
 In case of fire: Use CO₂, powder or water spray for extinction.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Directive 2012/18/EU**

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

· **Seveso category**

H2 ACUTE TOXIC

P8 OXIDISING LIQUIDS AND SOLIDS

E2 Hazardous to the Aquatic Environment

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
 Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**

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

7778-50-9	Potassium Dichromate
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· **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.

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· Contact:**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Oxidizing liquids – Category 2

Acute Tox. 2: Acute toxicity – Category 2

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

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

Repr. 1B: Reproductive toxicity – Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

AU

Safety Data Sheet

according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

1 Identification

- **Product identifier**
- **Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Article number:** 20103-4
- **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**



GHS03 Flame over circle

Oxidizing Liquids – Category 2

H272 May intensify fire; oxidizer.



GHS06 Skull and crossbones

Acute Toxicity (Inhalation) - Category 2

H330 Fatal if inhaled.



GHS08 Health hazard

Respiratory Sensitizer - Category 1

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

Germ Cell Mutagenicity - Category 1B

H340 May cause genetic defects.

Carcinogenicity - Category 1B

H350 May cause cancer.

Reproductive Toxicity - Category 1B

H360 May damage fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure - Category 1

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



GHS05 Corrosion

Skin Corrosion - Category 1B

H314 Causes severe skin burns and eye damage.

Serious Eye Damage - Category 1

H318 Causes serious eye damage.



GHS07

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

(Contd. of page 1)

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

· **Label elements**

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

· **Hazard pictograms**



GHS03 GHS05 GHS06 GHS08

· **Signal word** *Danger*

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidizer.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

· **Precautionary statements**

Obtain special instructions before use.

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

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

Keep away from clothing and other combustible materials.

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

[In case of inadequate ventilation] wear respiratory protection.

IF SWALLOWED: 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.

IF exposed or concerned: Get medical advice/attention.

Specific treatment is urgent (see on this label).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

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

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

Store locked up.

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

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

(Contd. of page 2)

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



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



3 Composition/Information on ingredients

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

- **Dangerous components:**

7778-50-9	Potassium Dichromate	1-5% 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.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. 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 DICHROMATE 5% AQUEOUS

(Contd. of page 3)

- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

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

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

7778-50-9 Potassium Dichromate

EL	TWA: 0.025 mg/m ³ Ceiling: 0.1 mg/m ³ as Cr; ACGIH A1, IARC 1; Skin; S(D), S(R)
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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.

(Contd. on page 5)

Safety Data Sheet according to HPR, Schedule 1

Printing date 01/07/2022

Reviewed on 01/07/2022

Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

(Contd. of page 4)

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

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:	Orange
· Odor:	Odorless
· Odor threshold:	Not determined.

· **pH-value at 20 °C:** 4

· **Change in condition**

· Melting point/Melting range:	0 °C
· 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.

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

(Contd. of page 5)

· 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:	1.0838 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	95.0 %
Solids content:	5.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

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

· LD/LC50 values that are relevant for classification:		
7778-50-9 Potassium Dichromate		
Oral	LD50	190 mg/kg (mouse)

- **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:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.

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· **Additional toxicological information:**

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

Harmful

Corrosive

Irritant

Very toxic

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

Carcinogenic.

The product can cause inheritable damage.

· **Carcinogenic categories**

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

7778-50-9	Potassium Dichromate	I
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· **NTP (National Toxicology Program)**

7778-50-9	Potassium Dichromate	K
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12 Ecological information

· **Toxicity**

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

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

· **Behavior in environmental systems:**

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

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

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **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.

CA

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Safety Data Sheet

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

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14 Transport information

· UN-Number	UN2810
· DOT/TDG, ADR, IMDG, IATA	
· UN proper shipping name	Toxic, liquids, organic, n.o.s. (Potassium Dichromate)
· DOT/TDG	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS
· ADR	TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
· IMDG	TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
· IATA	TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
· Transport hazard class(es)	
· DOT/TDG (Transport dangerous goods):	
	
· Class	6.1 Toxic substances
· Label	6.1
· ADR, IMDG	
	 
· Class	6.1 Toxic substances
· Label	6.1
· IATA	
	
· Class	6.1 Toxic substances
· Label	6.1
· Packing group	III
· DOT/TDG, ADR, IMDG, IATA	
· Environmental hazards:	Product contains environmentally hazardous substances:
· Marine pollutant:	Potassium Dichromate
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Toxic substances
· Hazard identification number (Kemler code):	60
· EMS Number:	F-A,S-A
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

(Contd. of page 8)

· **Transport/Additional information:**

· **DOT/TDG**

· **Quantity limitations**

On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICHROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

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):**

7778-50-9 | Potassium Dichromate

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

All components have the value ACTIVE.

· **Canadian substance listings:**

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

All ingredients are listed.

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

None of the ingredients is listed.

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

7778-50-9 | Potassium Dichromate

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS03

GHS05

GHS06

GHS08

· **Signal word** Danger

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

(Contd. of page 9)

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidizer.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

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

· **Precautionary statements**

Obtain special instructions before use.

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

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

Keep away from clothing and other combustible materials.

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

Wash thoroughly after handling.

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

Use only outdoors or in a well-ventilated area.

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

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

[In case of inadequate ventilation] wear respiratory protection.

IF SWALLOWED: 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.

IF exposed or concerned: Get medical advice/attention.

Specific treatment is urgent (see on this label).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

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

If experiencing respiratory symptoms: Call a poison center/doctor.

Wash contaminated clothing before reuse.

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

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

Store locked up.

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

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

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

16 Other information

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

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Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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· **Contact:**

· **Date of the latest revision of the safety data sheet** 01/07/2022 / -

· **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

CA

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

Printing date 07.01.2022

Revision: 07.01.2022

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

- **Product identifier**
- **Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Article number:** 20103-4
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**



flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidiser.



skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

Repr. 1B H360 May damage fertility or the unborn child.

STOT RE 2 H373 May cause damage to the respiratory system through prolonged or repeated exposure.



corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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(Contd. of page 1)



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

Acute Tox. 5 *H303 May be harmful if swallowed.*

Aquatic Acute 2 *H401 Toxic to aquatic life.*

· **Label elements**

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

· **Hazard pictograms**



GHS03 GHS05 GHS06 GHS08 GHS09

· **Signal word** *Danger*

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

Potassium Dichromate

· **Hazard statements**

May intensify fire; oxidiser.

May be harmful if swallowed.

Fatal if inhaled.

Causes severe skin burns and eye damage.

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

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child.

May cause damage to the respiratory system through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

Take any precaution to avoid mixing with combustibles.

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

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 is urgent (see on this label).

Take off contaminated clothing and wash it 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/information on ingredients

· **Chemical characterisation:** *Mixtures*

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

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· Dangerous components:		
7778-50-9	Potassium Dichromate ⚠ Ox. Sol. 2, H272; ⚠ Acute Tox. 3, H301; Acute Tox. 2, H330; ⚠ Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360; STOT RE 1, H372; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312; Skin Sens. 1, H317	>2.5-≤10%
· SVHC		
7778-50-9	Potassium Dichromate	

· **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.

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

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

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

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

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

· **After eye contact:** Rinse opened eye for several minutes under running water. 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.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

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

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

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

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

Use neutralising agent.

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- 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.
- Open and handle receptacle with care.
- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/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:**

7778-50-9 Potassium Dichromate

OELV Long-term value: 0.05 mg/m³
as Cr

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



Protective gloves

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

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

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

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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:	Orange
· Odour:	Odourless
· Odour threshold:	Not determined.

· **pH-value at 20 °C:** 4

· **Change in condition**

· Melting point/freezing point:	0 °C
· 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:	1.0838 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

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

Not miscible or difficult to mix.

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

(Contd. of page 5)

· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	95.0 %
VOC (EC)	0.00 %
Solids content:	5.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

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

11 Toxicological information

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

· LD/LC50 values relevant for classification:
7778-50-9 Potassium Dichromate
Oral LD50 190 mg/kg (mouse)

- **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**
Sensitisation possible through inhalation.
Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Corrosive
Irritant
Very toxic
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.
The product can cause inheritable damage.

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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Muta. 1B, Carc. 1B, Repr. 1B

12 Ecological information

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

13 Disposal considerations

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

14 Transport information

- | | |
|----------------------------------|--|
| · UN-Number | UN2810 |
| · ADR, IMDG, IATA | |
| · UN proper shipping name | 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS |
| · ADR | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT |
| · IMDG | |
| · IATA | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate) |

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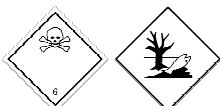
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· **Transport hazard class(es)**· **ADR, IMDG**· **Class**

6.1 Toxic substances.

· **Label**

6.1

· **IATA**· **Class**

6.1 Toxic substances.

· **Label**

6.1

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

III

· **Environmental hazards:**Product contains environmentally hazardous substances:
Potassium Dichromate· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Toxic substances.

· **Hazard identification number (Kemler code):**

60

· **EMS Number:**

F-A,S-A

· **Stowage Category**

A

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

2

· **Tunnel restriction code**

E

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

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICHROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

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

Printing date 07.01.2022

Revision: 07.01.2022

Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS03 GHS05 GHS06 GHS08 GHS09

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
Potassium Dichromate
- **Hazard statements**
May intensify fire; oxidiser.
May be harmful if swallowed.
Fatal if inhaled.
Causes severe skin burns and eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to the respiratory system through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
Take any precaution to avoid mixing with combustibles.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 is urgent (see on this label).
Take off contaminated clothing and wash it 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.*
- **Seveso category**
H2 ACUTE TOXIC
P8 OXIDISING LIQUIDS AND SOLIDS
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** *50 t*
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** *200 t*
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.
- **Other regulations, limitations and prohibitive regulations**

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

7778-50-9	Potassium Dichromate
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· **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.

· **Relevant phrases**

- H272 May intensify fire; oxidiser.
- H301 Toxic if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H330 Fatal if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· **Contact:**

· **Abbreviations and acronyms:**

- ADR: Accord relatif au transport international 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
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidizing liquids – Category 2
- Ox. Sol. 2: Oxidizing solids – Category 2
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 5: Acute toxicity – Category 5
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 2: Acute toxicity – Category 2
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Muta. 1B: Germ cell mutagenicity – Category 1B
- Carc. 1B: Carcinogenicity – Category 1B
- Repr. 1B: Reproductive toxicity – Category 1B
- STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

- **1.1 Product identifier**
- **Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Article number:** 20103-4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

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



flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidiser.



skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.

Repr. 1B H360FD May damage fertility. May damage the unborn child.

STOT RE 2 H373 May cause damage to the respiratory system through prolonged or repeated exposure.



corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.

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Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

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environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



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

STOT SE 3 H335 May cause respiratory irritation.

· **2.2 Label elements**

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

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

· **Hazard pictograms**



GHS03



GHS05



GHS06



GHS08



GHS09

· **Signal word** *Danger*

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

Potassium Dichromate

· **Hazard statements**

H272 May intensify fire; oxidiser.

H330 Fatal if inhaled.

H314 Causes severe skin burns and eye damage.

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

H317 May cause an allergic skin reaction.

H340 May cause genetic defects.

H350 May cause cancer.

H360FD May damage fertility. May damage the unborn child.

H335 May cause respiratory irritation.

H373 May cause damage to the respiratory system through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

· **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.

P320 Specific treatment is urgent (see on this label).

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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

(Contd. of page 2)

· **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: 7778-50-9 EINECS: 231-906-6	Potassium Dichromate  Ox. Sol. 2, H272;  Acute Tox. 3, H301; Acute Tox. 2, H330;  Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410;  Acute Tox. 4, H312; Skin Sens. 1, H317	>2.5-≤10%
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- **SVHC**

7778-50-9	Potassium Dichromate
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- **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.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. 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:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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

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

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

7778-50-9 Potassium Dichromate

WEL	Long-term value: 0.01 0.025* mg/m ³ as Cr; Carc, Sen, BMGV; *process generated
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· **Ingredients with biological limit values:**

7778-50-9 Potassium Dichromate

BMGV	10 µmol/mol creatinine Medium: urine Sampling time: post shift Parameter: chromium
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- **Additional information:** The lists valid during the making were used as basis.

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

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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

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Liquid
· Colour:	Orange
· Odour:	Odourless
· Odour threshold:	Not determined.

· **pH-value at 20 °C:** 4

· **Change in condition**

· Melting point/freezing point:	0 °C
· 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.

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· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.0838 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	95.0 %
VOC (EC)	0.00 %
Solids content:	5.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
Fatal if inhaled.

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

7778-50-9 Potassium Dichromate

Oral	LD50	190 mg/kg (mouse)
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- **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**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

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- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**
May cause genetic defects.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity**
May damage fertility. May damage the unborn child.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure**
May cause damage to the respiratory system through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

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

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN2810

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· **14.2 UN proper shipping name**
 · **ADR** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS
 · **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
 · **IATA** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)

· **14.3 Transport hazard class(es)**· **ADR, IMDG**

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

· **IATA**

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

· **14.4 Packing group**· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:** Product contains environmentally hazardous substances:
 · **Marine pollutant:** Potassium Dichromate
 Symbol (fish and tree)
 · **Special marking (ADR):** Symbol (fish and tree)

· **14.6 Special precautions for user** Warning: Toxic substances.
 · **Hazard identification number (Kemler code):** 60
 · **EMS Number:** F-A,S-A
 · **Stowage Category** A
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Limited quantities (LQ)** 5L
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml
 · **Transport category** 2
 · **Tunnel restriction code** E

· **IMDG**
 · **Limited quantities (LQ)** 5L

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICHROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
H2 ACUTE TOXIC
P8 OXIDISING LIQUIDS AND SOLIDS
E2 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**
7778-50-9 Potassium Dichromate
- **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**
H272 May intensify fire; oxidiser.
H301 Toxic if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340 May cause genetic defects.
H350 May cause cancer.
H360FD May damage fertility. May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international 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

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*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**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Ox. Liq. 2: Oxidizing liquids – Category 2**Ox. Sol. 2: Oxidizing solids – Category 2**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 2: Acute toxicity – Category 2**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Resp. Sens. 1: Respiratory sensitisation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Muta. 1B: Germ cell mutagenicity – Category 1B**Carc. 1B: Carcinogenicity – Category 1B**Repr. 1B: Reproductive toxicity – Category 1B**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

GB

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 07.01.2022

Herziening van: 07.01.2022

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

1.1 Productidentificatie

· **Handelsnaam:** POTASSIUM DICHROMATE 5% AQUEOUS

· **Artikelnummer:** 20103-4

· **UFI:** 0Q62-20XN-200G-14T0

1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik

Geen verdere relevante informatie verkrijgbaar.

· **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën

1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad

Fabrikant/leverancier:

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: info@emsdiasum.com

www.emsdiasum.com

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: info@aurion.nl

· **Inlichtingengevende sector:** Product safety department

1.4 Telefoonnummer voor noodgevallen:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

2.1 Indeling van de stof of het mengsel

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



GHS03 vlam boven cirkel

Ox. Liq. 2

H272

Kan brand bevorderen; oxiderend.



GHS06 doodshoofd met gekruiste beenderen

Acute Tox. 2

H330

Dodelijk bij inademing.



GHS08 gezondheidsgevaar

Resp. Sens. 1

H334

Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.

Muta. 1B

H340

Kan genetische schade veroorzaken.

Carc. 1B

H350

Kan kanker veroorzaken.

Repr. 1B

H360FD

Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.

STOT RE 2

H373

Kan schade aan het ademhalingsstelsel veroorzaken bij langdurige of herhaalde blootstelling.

(Vervolg op blz. 2)

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GHS05 corrosie

Skin Corr. 1B H314 Veroorzaakt ernstige brandwonden en oogletsel.

Eye Dam. 1 H318 Veroorzaakt ernstig oogletsel.



GHS09 milieu

Aquatic Chronic 2 H411 Giftig voor in het water levende organismen, met langdurige gevolgen.



GHS07

Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

STOT SE 3 H335 Kan irritatie van de luchtwegen veroorzaken.

· 2.2 Etiketteringselementen

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

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

· Gevarenpictogrammen



GHS03



GHS05



GHS06



GHS08



GHS09

· Signaalwoord Gevaar

· Gevaaraanduidende componenten voor de etikettering:

kaliumdichromaat

· Gevarenaanduidingen

H272 Kan brand bevorderen; oxiderend.

H330 Dodelijk bij inademing.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

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

H317 Kan een allergische huidreactie veroorzaken.

H340 Kan genetische schade veroorzaken.

H350 Kan kanker veroorzaken.

H360FD Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.

H335 Kan irritatie van de luchtwegen veroorzaken.

H373 Kan schade aan het ademhalingsstelsel veroorzaken bij langdurige of herhaalde blootstelling.

H411 Giftig voor in het water levende organismen, met langdurige gevolgen.

· 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.

P320 Specifieke behandeling dringend vereist (zie op dit etiket).

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

P405 Achter slot bewaren.

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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 onveerbarelijke bijmengingen.

· Gevaarlijke inhoudstoffen:

CAS: 7778-50-9	kaliumdichromaat	>2,5-≤10%
EINECS: 231-906-6	Ox. Sol. 2, H272; Acute Tox. 3, H301; Acute Tox. 2, H330; Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Skin Sens. 1, H317	

· SVHC

7778-50-9	kaliumdichromaat
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· Aanvullende gegevens:

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

RUBRIEK 4: Eerstehulpmaatregelen

- 4.1 Beschrijving van de eerstehulpmaatregelen
- Algemene informatie:
 - Verontreinigde kleding onmiddellijk uittrekken.
 - Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
 - Ademhalingstoestel pas afnemen nadat de verontreinigde kleding verwijderd is.
 - Bij onregelmatige ademhaling of ademstilstand kunstmatige ademhaling toepassen.
- Na het inademen:
 - Verse lucht of zuurstof toedienen; deskundige medische hulp inroepen.
 - Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.
- Na oogcontact: 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. 4)

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- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Ademhalingstoestel aantrekken.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvorzorgsmaatregelen:**
Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 InsluTINGS- 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.
Tanks voorzichtig openen en behandelen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.
- **Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **8.1 Controleparameters**
- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

7778-50-9 kaliumdichromaat

WGW	Lange termijn waarde: 0,001 mg/m ³ als Cr
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- **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.

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

Beschermende kleding afzonderlijk bewaren.

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.

· **Handbescherming:**



Veiligheidshandschoenen

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

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

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

· **Handschoenmateriaal**

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

· **Doordringingstijd van het handschoenmateriaal**

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

· **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

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

· **Algemene gegevens**

· **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Oranje
Geur:	Reukloos
Geurdrempelwaarde:	Niet bepaald.

· **pH-waarde bij 20 °C:** 4

· **Toestandsverandering**

Smelt-/vriespunt:	0 °C
Beginkookpunt en kooktraject:	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.

(Vervolg op blz. 6)

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(Vervolg van blz. 5)

· Ontploffingsgrenzen:	
Onderste:	Niet bepaald.
Bovenste:	Niet bepaald.
· Dampspanning bij 20 °C:	23 hPa
· Dichtheid bij 20 °C:	1,0838 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water:	Niet resp. gering mengbaar.
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Water:	95,0 %
VOC (EG)	0,00 %
Gehalte aan vaste bestanddelen:	5,0 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

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

RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit**
Dodelijk bij inademing.

· Indelingsrelevantie LD/LC50-waarden:		
7778-50-9 kaliumdichromaat		
Oraal	LD50	190 mg/kg (mouse)

- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt ernstige brandwonden en oogletsel.
- **Ernstig oogletsel/oogirritatie**
Veroorzaakt ernstig oogletsel.
- **Sensibilisatie van de luchtwegen/de huid**
Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.
Kan een allergische huidreactie veroorzaken.

(Vervolg op blz. 7)

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- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen**
Kan genetische schade veroorzaken.
- **Kankerverwekkendheid**
Kan kanker veroorzaken.
- **Giftigheid voor de voortplanting**
Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.
- **STOT bij eenmalige blootstelling**
Kan irritatie van de luchtwegen veroorzaken.
- **STOT bij herhaalde blootstelling**
Kan schade aan het ademhalingsstelsel veroorzaken bij langdurige of herhaalde blootstelling.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

RUBRIEK 12: Ecologische informatie

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

RUBRIEK 13: Instructies voor verwijdering

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

RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UN2810

(Vervolg op blz. 8)

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· **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
 · **ADR** 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G.
 (kaliumdichromaat), MILIEUGEVAARLIJK
 · **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate),
 MARINE POLLUTANT
 · **IATA** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)

· **14.3 Transportgevaarklasse(n)**· **ADR, IMDG**

· **klasse** 6.1 Giftige stoffen
 · **Etiket** 6.1

· **IATA**

· **Class** 6.1 Giftige stoffen
 · **Label** 6.1

· **14.4 Verpakkingsgroep:**· **ADR, IMDG, IATA** III

· **14.5 Milieugevaren:** Produkt bevat milieugevaarlijke stoffen: kaliumdichromaat
 · **Marine pollutant:** Symbool (vis en boom)
 · **Bijzondere kenmerking (ADR):** Symbool (vis en boom)

· **14.6 Bijzondere voorzorgen voor de gebruiker** Waarschuwing: Giftige stoffen
 · **Gevaarsidentificatienummer (Kemler-getal):** 60
 · **EMS-nummer:** F-A,S-A
 · **Stowage Category** A
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Vervoer in bulk overeenkomstig bijlage II bij**
Marpol en de IBC-code

Niet bruikbaar.

· **Transport/verdere gegevens:**

· **ADR**
 · **Beperkte hoeveelheden (LQ)** 5L
 · **Uitgezonderde hoeveelheden (EQ)** Code: E1
 Grootste netto hoeveelheid per binnenverpakking: 30 ml
 Grootste netto hoeveelheid per buitenverpakking: 1000 ml
 · **Vervoerscategorie** 2
 · **Tunnelbeperkingscode** E

· **IMDG**
 · **Limited quantities (LQ)** 5L

(Vervolg op blz. 9)

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· VN "Model Regulation":	UN 2810 GIFTIGE ORGANISCHE VLOEISTOF, N.E.G. (KALIUMDICHROMAAT), 6.1, III, MILIEUGEVAARLIJK

RUBRIEK 15: Regelgeving

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

· **SZW-lijst van kankerverwekkende stoffen**

7778-50-9	kaliumdichromaat
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· **SZW-lijst van mutagene stoffen**

7778-50-9	kaliumdichromaat
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· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid**

7778-50-9	kaliumdichromaat	1B
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· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling**

7778-50-9	kaliumdichromaat	1B
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· **NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding**

geen der bestanddelen staat op de lijst.

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

7778-50-9	kaliumdichromaat
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· **Lijst van Potentieel Zeer Zorgwekkende Stoffen**

geen der bestanddelen staat op de lijst.

· **Richtlijn 2012/18/EU**

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

· **Seveso-categorie**

H2 ACUUT TOXISCH

P8 OXIDERENDE VLOEISTOFFEN EN VASTE STOFFEN

E2 Gevaar voor het aquatisch milieu

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

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

· **LIJST VAN AUTORISATIEPLICHTIGE STOFFEN (BIJLAGE XIV)**

7778-50-9	kaliumdichromaat	Sunset date: 2017-09-21
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· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII** Beperkingsvoorwaarden: 3, 28, 29, 30, 47, 72

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

7778-50-9	kaliumdichromaat
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· **VERORDENING (EU) 2019/1148**

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

(Vervolg op blz. 10)

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

geen der bestanddelen staat op de lijst.

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

geen der bestanddelen staat op de lijst.

· **Nationale voorschriften:**

· **Aanwijzingen m.b.t. tewerkstellingsbeperking:**

Werknemers mogen aan de kankerverwekkende gevaarlijke stoffen van deze toebereiding niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

· **Gevaarklasse v. water:**

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

· **Aanvullende voorschriften, beperkingen en verbodsverordeningen**

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

7778-50-9 kaliumdichromaat

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

RUBRIEK 16: Overige informatie

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

· **Relevante zinnen**

- H272 Kan brand bevorderen; oxiderend.
- H301 Giftig bij inslikken.
- H312 Schadelijk bij contact met de huid.
- H314 Veroorzaakt ernstige brandwonden en oogletsel.
- H317 Kan een allergische huidreactie veroorzaken.
- H330 Dodelijk bij inademing.
- H334 Kan bij inademing allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.
- H340 Kan genetische schade veroorzaken.
- H350 Kan kanker veroorzaken.
- H360FD Kan de vruchtbaarheid schaden. Kan het ongeboren kind schaden.
- H372 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.
- H400 Zeer giftig voor in het water levende organismen.
- H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.

· **Afkortingen en acroniemen:**

ADR: Accord relatif au transport international 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
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Ox. Liq. 2: Oxiderende vloeistoffen – Categorie 2
 Ox. Sol. 2: Oxiderende vaste stoffen – Categorie 2
 Acute Tox. 3: Acute toxiciteit – Categorie 3

(Vervolg op blz. 11)

**Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31**

datum van de druk: 07.01.2022

Herziening van: 07.01.2022

Handelsnaam: POTASSIUM DICHROMATE 5% AQUEOUS

(Vervolg van blz. 10)

Acute Tox. 4: Acute toxiciteit – Categorie 4
Acute Tox. 2: Acute toxiciteit – Categorie 2
Skin Corr. 1B: Huidcorrosie/irritatie – Categorie 1B
Eye Dam. 1: Ernstig oogletsel/oogirritatie – Categorie 1
Resp. Sens. 1: Sensibilisatie van de luchtwegen – Categorie 1
Skin Sens. 1: Sensibilisatie van de huid – Categorie 1
Muta. 1B: Mutageniteit in geslachtscellen – Categorie 1B
Carc. 1B: Kankerverwekkendheid – Categorie 1B
Repr. 1B: Voortplantingstoxiciteit – Categorie 1B
STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3
STOT RE 1: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 1
STOT RE 2: Specifieke doelorgaantoxiciteit bij herhaalde blootstelling – Categorie 2
Aquatic Acute 1: Gevaar voor het aquatisch milieu - acuut aquatisch gevaar – Categorie 1
Aquatic Chronic 1: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 1
Aquatic Chronic 2: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 2

NL

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

- **1.1 Identificateur de produit**
- **Nom du produit:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Code du produit:** 20103-4
- **UFI:** 0Q62-20XN-200G-14T0
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIQUE 2: Identification des dangers

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



GHS03 flamme au-dessus d'un cercle

Ox. Liq. 2	H272	Peut aggraver un incendie; comburant.
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GHS06 tête de mort sur deux tibias

Acute Tox. 2	H330	Mortel par inhalation.
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GHS08 danger pour la santé

Resp. Sens. 1	H334	Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
Muta. 1B	H340	Peut induire des anomalies génétiques.
Carc. 1B	H350	Peut provoquer le cancer.
Repr. 1B	H360FD	Peut nuire à la fertilité. Peut nuire au fœtus.
STOT RE 2	H373	Risque présumé d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.



GHS05 corrosion

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

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GHS09 environnement

Aquatic Chronic 2 H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

STOT SE 3 H335 Peut irriter les voies respiratoires.

- **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**



GHS03



GHS05



GHS06



GHS08



GHS09

- **Mention d'avertissement** Danger
- **Composants dangereux déterminants pour l'étiquetage:**
dichromate de potassium
- **Mentions de danger**
 - H272 Peut aggraver un incendie; comburant.
 - H330 Mortel par inhalation.
 - H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.
 - H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
 - H317 Peut provoquer une allergie cutanée.
 - H340 Peut induire des anomalies génétiques.
 - H350 Peut provoquer le cancer.
 - H360FD Peut nuire à la fertilité. Peut nuire au fœtus.
 - H335 Peut irriter les voies respiratoires.
 - H373 Risque présumé d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.
 - H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
- **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.
 - P320 Un traitement spécifique est urgent (voir sur cette étiquette).
 - P362+P364 Enlever les vêtements contaminés et les laver avant réutilisation.
 - P405 Garder sous clef.
 - P501 Éliminer le contenu/réceptacle conformément à la réglementation locale/régionale/nationale/internationale.
- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.

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· **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: 7778-50-9 EINECS: 231-906-6	dichromate de potassium Ox. Sol. 2, H272; Acute Tox. 3, H301; Acute Tox. 2, H330; Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Skin Sens. 1, H317	>2,5-≤10%
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· **SVHC**

7778-50-9	dichromate de potassium
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· **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.

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

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

· **Après inhalation:**

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

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

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

· **Après contact avec les yeux:**

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

· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

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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:**
En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).
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.
Ouvrir et manipuler les récipients avec précaution.
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Tenir des appareils de protection respiratoire prêts.
- **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

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

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

7778-50-9 dichromate de potassium

VLEP	Valeur momentanée: 0,005 mg/m ³ Valeur à long terme: 0,001 mg/m ³ en Cr; C1, C2 ou C3
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- **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.

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Conserver à part les vêtements de protection.

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.

· **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:**

Forme: Liquide

Couleur: Orange

· **Odeur:** Inodore

· **Seuil olfactif:** Non déterminé.

· **valeur du pH à 20 °C:** 4

· **Changement d'état**

Point de fusion/point de congélation: 0 °C

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

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· Limites d'explosion:	
Inférieure:	Non déterminé.
Supérieure:	Non déterminé.
· Pression de vapeur à 20 °C:	23 hPa
· Densité à 20 °C:	1,0838 g/cm ³
· Densité relative	Non déterminé.
· Densité de vapeur:	Non déterminé.
· Taux d'évaporation:	Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Pas ou peu miscible
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité:	
Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants:	
Eau:	95,0 %
VOC (CE)	0,00 %
Teneur en substances solides:	5,0 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

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

RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**
Mortel par inhalation.

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

7778-50-9 dichromate de potassium

Oral	LD50	190 mg/kg (souris)
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- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**
Provoque de graves 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**
Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
Peut provoquer une allergie cutanée.

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- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité sur les cellules germinales**
Peut induire des anomalies génétiques.
- **Cancérogénicité**
Peut provoquer le cancer.
- **Toxicité pour la reproduction**
Peut nuire à la fertilité. Peut nuire au fœtus.
- **Toxicité spécifique pour certains organes cibles - exposition unique**
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**
Risque présumé d'effets graves pour le système respiratoire à la suite d'expositions répétées ou d'une exposition prolongée.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Effets écotoxiques:**
- **Remarque:** Toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 3 (D) (Classification propre): très polluant
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations, même pas en petite quantité.
Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.
Danger pour l'eau potable dès fuite d'une quantité minime dans le sous-sol.
Dans les eaux, également toxique pour les poissons et le plancton.
Toxique pour les organismes aquatiques.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

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

RUBRIQUE 14: Informations relatives au transport

- **14.1 Numéro ONU**
 - **ADR, IMDG, IATA**
- UN2810

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· **14.2 Désignation officielle de transport de l'ONU**
 · **ADR** 2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A. (dichromate de potassium), DANGEREUX POUR L'ENVIRONNEMENT
 · **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
 · **IATA** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)

· **14.3 Classe(s) de danger pour le transport**

· **ADR, IMDG**



· **Classe** 6.1 Matières toxiques.
 · **Étiquette** 6.1

· **IATA**



· **Class** 6.1 Matières toxiques.
 · **Label** 6.1

· **14.4 Groupe d'emballage**

· **ADR, IMDG, IATA** III

· **14.5 Dangers pour l'environnement:**

· **Marine Pollutant:**

· **Marquage spécial (ADR):**

Le produit contient matières dangereuses pour l'environnement : dichromate de potassium

Signe conventionnel (poisson et arbre)

Signe conventionnel (poisson et arbre)

· **14.6 Précautions particulières à prendre par l'utilisateur**

· **Numéro d'identification du danger (Indice Kemler):**

· **No EMS:**

· **Stowage Category**

· **Stowage Code**

Attention: Matières toxiques.

60

F-A,S-A

A

SW2 Clear of living quarters.

· **14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC**

Non applicable.

· **Indications complémentaires de transport:**

· **ADR**

· **Quantités limitées (LQ)**

· **Quantités exceptées (EQ)**

5L

Code: E1

Quantité maximale nette par emballage intérieur: 30 ml

Quantité maximale nette par emballage extérieur: 1000

ml

· **Catégorie de transport**

2

· **Code de restriction en tunnels**

E

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<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> · "Règlement type" de l'ONU: 	<p>UN 2810 LIQUIDE ORGANIQUE TOXIQUE, N.S.A. (DICHROMATE DE POTASSIUM), 6.1, III, DANGEREUX POUR L'ENVIRONNEMENT</p>

RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **Catégorie SEVESO**
H2 TOXICITÉ AIGUË
P8 LIQUIDES ET SOLIDES COMBURANTS
E2 Danger pour l'environnement aquatique
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 50 t**
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 200 t**

· LISTE DES SUBSTANCES SOUMISES À AUTORISATION (ANNEXE XIV)

7778-50-9	dichromate de potassium	Sunset date: 2017-09-21
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- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3, 28, 29, 30, 47, 72

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

7778-50-9	dichromate de potassium
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· RÈGLEMENT (UE) 2019/1148

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

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

Aucun des composants n'est compris.

· Prescriptions nationales:

· Indications sur les restrictions de travail:

Le personnel ne doit pas être exposé aux substances dangereuses cancérogènes contenues dans cette préparation. Les autorités peuvent autoriser des exceptions dans des cas particuliers.

· Autres prescriptions, restrictions et règlements d'interdiction

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

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· **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**

- H272 Peut aggraver un incendie; comburant.
- H301 Toxique en cas d'ingestion.
- H312 Nocif par contact cutané.
- H314 Provoque de graves brûlures de la peau et de graves lésions des yeux.
- H317 Peut provoquer une allergie cutanée.
- H330 Mortel par inhalation.
- H334 Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
- H340 Peut induire des anomalies génétiques.
- H350 Peut provoquer le cancer.
- H360FD Peut nuire à la fertilité. Peut nuire au fœtus.
- H372 Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.
- H400 Très toxique pour les organismes aquatiques.
- H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· **Acronymes et abréviations:**

- ADR: Accord relatif au transport international 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
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Liquides comburants – Catégorie 2
- Ox. Sol. 2: Matières solides comburantes – Catégorie 2
- Acute Tox. 3: Toxicité aiguë – Catégorie 3
- Acute Tox. 4: Toxicité aiguë – Catégorie 4
- Acute Tox. 2: Toxicité aiguë – Catégorie 2
- Skin Corr. 1B: Corrosion cutanée/irritation cutanée – Catégorie 1B
- Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1
- Resp. Sens. 1: Sensibilisation respiratoire – Catégorie 1
- Skin Sens. 1: Sensibilisation cutanée – Catégorie 1
- Muta. 1B: Mutagénicité sur les cellules germinales – Catégorie 1B
- Carc. 1B: Cancérogénicité – Catégorie 1B
- Repr. 1B: Toxicité pour la reproduction – Catégorie 1B
- STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3
- STOT RE 1: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 1
- STOT RE 2: Toxicité spécifique pour certains organes cibles (exposition répétée) – Catégorie 2
- Aquatic Acute 1: Dangers pour le milieu aquatique- toxicité aiguë pour le milieu aquatique – Catégorie 1
- Aquatic Chronic 1: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 1
- Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2

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

- **1.1 Produktidentifikator**
- **Handelsname:** POTASSIUM DICHROMATE 5% AQUEOUS
- **Artikelnummer:** 20103-4
- **UFI:** 0Q62-20XN-200G-14T0
- **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
- **Auskunfteibereich:** 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**



GHS03 Flamme über einem Kreis

Ox. Liq. 2

H272

Kann Brand verstärken; Oxidationsmittel.



GHS06 Totenkopf mit gekreuzten Knochen

Acute Tox. 2

H330

Lebensgefahr bei Einatmen.



GHS08 Gesundheitsgefahr

Resp. Sens. 1

H334

Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

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Muta. 1B	H340	Kann genetische Defekte verursachen.
Carc. 1B	H350	Kann Krebs erzeugen.
Repr. 1B	H360FD	Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.
STOT RE 2	H373	Kann das Respirationssystem schädigen bei längerer oder wiederholter Exposition.



GHS05 Ätzwirkung

Skin Corr. 1B	H314	Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
Eye Dam. 1	H318	Verursacht schwere Augenschäden.



GHS09 Umwelt

Aquatic Chronic 2	H411	Giftig für Wasserorganismen, mit langfristiger Wirkung.
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GHS07

Skin Sens. 1	H317	Kann allergische Hautreaktionen verursachen.
STOT SE 3	H335	Kann die Atemwege reizen.

· 2.2 Kennzeichnungselemente

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

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

· Gefahrenpiktogramme



GHS03



GHS05



GHS06



GHS08



GHS09

· Signalwort Gefahr

· Gefahrbestimmende Komponenten zur Etikettierung:

Kaliumdichromat

· Gefahrenhinweise

H272	Kann Brand verstärken; Oxidationsmittel.
H330	Lebensgefahr bei Einatmen.
H314	Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
H334	Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.
H317	Kann allergische Hautreaktionen verursachen.
H340	Kann genetische Defekte verursachen.
H350	Kann Krebs erzeugen.
H360FD	Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.
H335	Kann die Atemwege reizen.
H373	Kann das Respirationssystem schädigen bei längerer oder wiederholter Exposition.
H411	Giftig für Wasserorganismen, mit langfristiger Wirkung.

· 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.

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- P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.
 P320 Besondere Behandlung dringend erforderlich (siehe auf diesem Kennzeichnungsetikett).
 P362+P364 Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
 P405 Unter Verschluss aufbewahren.
 P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

· Zusätzliche Angaben:

Nur für gewerbliche Anwender.














· 2.3 Sonstige Gefahren
· Ergebnisse der PBT- und vPvB-Beurteilung
· PBT: Nicht anwendbar.

· vPvB: Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

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

· Gefährliche Inhaltsstoffe:

CAS: 7778-50-9	Kaliumdichromat	>2,5-≤10%
EINECS: 231-906-6	 Ox. Sol. 2, H272;  Acute Tox. 3, H301;  Acute Tox. 2, H330;  Resp. Sens. 1, H334;  Muta. 1B, H340;  Carc. 1B, H350;  Repr. 1B, H360FD;  STOT RE 1, H372;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Aquatic Chronic 1, H410;  Acute Tox. 4, H312;  Skin Sens. 1, H317	

· SVHC

7778-50-9	Kaliumdichromat
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· Zusätzliche Hinweise: Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· 4.1 Beschreibung der Erste-Hilfe-Maßnahmen
· Allgemeine Hinweise:

Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

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

Atemschutz erst nach Entfernen verunreinigter Kleidungsstücke abnehmen.

Bei unregelmäßiger Atmung oder Atemstillstand künstliche Beatmung.

· Nach Einatmen:

Frischluf- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

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

· Nach Augenkontakt:

Augen 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:** Atemschutzgerät anlegen.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.
- **6.2 Umweltschutzmaßnahmen:**
Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.
Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.
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.
Behälter mit Vorsicht öffnen und handhaben.
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Atemschutzgeräte bereithalten.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Behälter dicht geschlossen halten.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** oxidierende Flüssigkeiten
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

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

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· Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:
7778-50-9 Kaliumdichromat

MAK einatembare Fr.; vgl. Abschn. XII

TRGS 910 Toleranzkonzentration: 0,001 (E), Überschreitungsfaktor: 8, Konzentrationen beziehen sich auf Cr-Gehalt

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

· 8.2 Begrenzung und Überwachung der Exposition
· Persönliche Schutzausrüstung:
· Allgemeine Schutz- und Hygienemaßnahmen:

Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen.

Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen vermeiden.

Berührung mit den Augen und der Haut vermeiden.

· Atemschutz:

Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

· Handschutz:


Schutzhandschuhe

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

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

· Handschuhmaterial

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

· Durchdringungszeit des Handschuhmaterials

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· Augenschutz:


Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften
· Allgemeine Angaben
· Aussehen:
Form: Flüssigkeit

Farbe: Orange

· Geruch: Geruchlos

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· Geruchsschwelle:	Nicht bestimmt.
· pH-Wert bei 20 °C:	4
· Zustandsänderung Schmelzpunkt/Gefrierpunkt:	0 °C
Siedebeginn und Siedebereich:	100 °C
· Flammpunkt:	Nicht anwendbar.
· Entzündbarkeit (fest, gasförmig):	Nicht anwendbar.
· Zersetzungstemperatur:	Nicht bestimmt.
· Selbstentzündungstemperatur:	Das Produkt ist nicht selbstentzündlich.
· Explosive Eigenschaften:	Das Produkt ist nicht explosionsgefährlich.
· Explosionsgrenzen: Untere:	Nicht bestimmt.
Obere:	Nicht bestimmt.
· Dampfdruck bei 20 °C:	23 hPa
· Dichte bei 20 °C:	1,0838 g/cm ³
· Relative Dichte	Nicht bestimmt.
· Dampfdichte	Nicht bestimmt.
· Verdampfungsgeschwindigkeit	Nicht bestimmt.
· Löslichkeit in / Mischbarkeit mit Wasser:	Nicht bzw. wenig mischbar.
· Verteilungskoeffizient: n-Octanol/Wasser:	Nicht bestimmt.
· Viskosität: Dynamisch:	Nicht bestimmt.
Kinematisch:	Nicht bestimmt.
· Lösemittelgehalt: Wasser:	95,0 %
VOC (EU)	0,00 %
Festkörpergehalt:	5,0 %
· 9.2 Sonstige Angaben	Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

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

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ABSCHNITT 11: Toxikologische Angaben

· 11.1 Angaben zu toxikologischen Wirkungen

· Akute Toxizität

Lebensgefahr bei Einatmen.

· Einstufungsrelevante LD/LC50-Werte:

7778-50-9 Kaliumdichromat

Oral	LD50	190 mg/kg (mouse)
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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

Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.

Kann allergische Hautreaktionen verursachen.

· Zusätzliche toxikologische Hinweise:

· CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)

· Keimzell-Mutagenität

Kann genetische Defekte verursachen.

· Karzinogenität

Kann Krebs erzeugen.

· Reproduktionstoxizität

Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.

· Spezifische Zielorgan-Toxizität bei einmaliger Exposition

Kann die Atemwege reizen.

· Spezifische Zielorgan-Toxizität bei wiederholter Exposition

Kann das Respirationssystem schädigen bei längerer oder wiederholter Exposition.

· Aspirationsgefahr Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

· 12.1 Toxizität

· **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.

· **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.

· **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.

· **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.

· Ökotoxische Wirkungen:

· **Bemerkung:** Giftig für Fische.

· Weitere ökologische Hinweise:

· Allgemeine Hinweise:

Wassergefährdungsklasse 3 (Selbsteinstufung): stark wassergefährdend

Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen, auch nicht in kleinen Mengen.

Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.

Trinkwassergefährdung bereits beim Auslaufen geringster Mengen in den Untergrund.

In Gewässern auch giftig für Fische und Plankton.

giftig für Wasserorganismen

· 12.5 Ergebnisse der PBT- und vPvB-Beurteilung

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

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· **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

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

ABSCHNITT 14: Angaben zum Transport

<ul style="list-style-type: none"> · 14.1 UN-Nummer · ADR, IMDG, IATA 	UN2810
<ul style="list-style-type: none"> · 14.2 Ordnungsgemäße UN-Versandbezeichnung · ADR · IMDG · IATA 	2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (Kaliumdichromat), UMWELTGEFÄHRDEND TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
<ul style="list-style-type: none"> · 14.3 Transportgefahrenklassen · ADR, IMDG 	6.1 Giftige Stoffe 6.1
<ul style="list-style-type: none"> · Klasse · Gefahrzettel 	6.1 Giftige Stoffe 6.1
<ul style="list-style-type: none"> · IATA 	6.1 Giftige Stoffe 6.1
<ul style="list-style-type: none"> · 14.4 Verpackungsgruppe · ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · 14.5 Umweltgefahren: · Marine pollutant: · Besondere Kennzeichnung (ADR): 	Das Produkt enthält umweltgefährdende Stoffe: Kaliumdichromat Symbol (Fisch und Baum) Symbol (Fisch und Baum)
<ul style="list-style-type: none"> · 14.6 Besondere Vorsichtsmaßnahmen für den Verwender · Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl): · EMS-Nummer: 	Achtung: Giftige Stoffe 60 F-A,S-A

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· <i>Stowage Category</i>	A
· <i>Stowage Code</i>	SW2 Clear of living quarters.
· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code Nicht anwendbar.	
· Transport/weitere Angaben:	
· ADR	
· <i>Begrenzte Menge (LQ)</i>	5L
· <i>Freigestellte Mengen (EQ)</i>	Code: E1 Höchste Nettomenge je Innenverpackung: 30 ml Höchste Nettomenge je Außenverpackung: 1000 ml
· <i>Beförderungskategorie</i>	2
· <i>Tunnelbeschränkungscode</i>	E
· IMDG	
· <i>Limited quantities (LQ)</i>	5L
· <i>Excepted quantities (EQ)</i>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N. A. G. (KALIUMDICHROMAT), 6.1, III, UMWELTGEFÄHRDEND

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **Seveso-Kategorie**
H2 AKUT TOXISCH
P8 ENTZÜNDEND (OXIDIEREND) WIRKENDE FLÜSSIGKEITEN UND FESTSTOFFE
E2 Gewässergefährdend
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 50 t
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t

· VERZEICHNIS DER ZULASSUNGSPFLICHTIGEN STOFFE (ANHANG XIV)

7778-50-9	Kaliumdichromat	Sunset date: 2017-09-21
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- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3, 28, 29, 30, 47, 72

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

7778-50-9	Kaliumdichromat
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- **VERORDNUNG (EU) 2019/1148**

· **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**

Keiner der Inhaltsstoffe ist enthalten.

· **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**

Keiner der Inhaltsstoffe ist enthalten.

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· Verordnung (EG) Nr. 273/2004 betreffend Drogenausgangsstoffe

Keiner der Inhaltsstoffe ist enthalten.

· Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Drogenaustauschstoffen zwischen der Gemeinschaft und Drittländern

Keiner der Inhaltsstoffe ist enthalten.

· Nationale Vorschriften:
· Hinweise zur Beschäftigungsbeschränkung:

Arbeitnehmer dürfen den in dieser Zubereitung enthaltenen krebserzeugenden Gefahrstoffen nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.

· Wassergefährdungsklasse: WGK 3 (Selbsteinstufung): stark wassergefährdend.
· Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen

Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe

· Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57

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· 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

- H272 Kann Brand verstärken; Oxidationsmittel.
- H301 Giftig bei Verschlucken.
- H312 Gesundheitsschädlich bei Hautkontakt.
- H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- H317 Kann allergische Hautreaktionen verursachen.
- H330 Lebensgefahr bei Einatmen.
- H334 Kann bei Einatmen Allergie, asthmaartige Symptome oder Atembeschwerden verursachen.
- H340 Kann genetische Defekte verursachen.
- H350 Kann Krebs erzeugen.
- H360FD Kann die Fruchtbarkeit beeinträchtigen. Kann das Kind im Mutterleib schädigen.
- H372 Schädigt die Organe bei längerer oder wiederholter Exposition.
- H400 Sehr giftig für Wasserorganismen.
- H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.

· Abkürzungen und Akronyme:

ADR: Accord relatif au transport international 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Oxidierende Flüssigkeiten – Kategorie 2

Ox. Sol. 2: Oxidierende Feststoffe – Kategorie 2

Acute Tox. 3: Akute Toxizität – Kategorie 3

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Acute Tox. 4: Akute Toxizität – Kategorie 4
Acute Tox. 2: Akute Toxizität – Kategorie 2
Skin Corr. 1B: Hautreizende/-ätzende Wirkung – Kategorie 1B
Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1
Resp. Sens. 1: Sensibilisierung der Atemwege – Kategorie 1
Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1
Muta. 1B: Keimzellmutagenität – Kategorie 1B
Carc. 1B: Karzinogenität – Kategorie 1B
Repr. 1B: Reproduktionstoxizität – Kategorie 1B
STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3
STOT RE 1: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 1
STOT RE 2: Spezifische Zielorgan-Toxizität (wiederholte Exposition) – Kategorie 2
Aquatic Acute 1: Gewässergefährdend - akut gewässergefährdend – Kategorie 1
Aquatic Chronic 1: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 1
Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2

DE

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

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

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** POTASSIUM DICHROMATE 5% AQUEOUS

· **Articolo numero:** 20103-4

· **UFI:** 0Q62-20XN-200G-14T0

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**
Non sono disponibili altre informazioni.

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

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

· **Produttore/fornitore:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

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

email: info@emsdiasum.com

www.emsdiasum.com

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

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

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

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

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



GHS03 fiamma su cerchio

Ox. Liq. 2

H272

Può aggravare un incendio; comburente.



GHS06 teschio e tibie incrociate

Acute Tox. 2

H330

Letale se inalato.



GHS08 pericolo per la salute

Resp. Sens. 1

H334

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

Muta. 1B

H340

Può provocare alterazioni genetiche.

Carc. 1B

H350

Può provocare il cancro.

Repr. 1B

H360FD

Può nuocere alla fertilità. Può nuocere al feto.

STOT RE 2

H373

Può provocare danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.

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GHS05 corrosione

Skin Corr. 1B H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Eye Dam. 1 H318 Provoca gravi lesioni oculari.



GHS09 ambiente

Aquatic Chronic 2 H411 Tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

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

STOT SE 3 H335 Può irritare le vie respiratorie.

· **2.2 Elementi dell'etichetta**

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

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

· **Pittogrammi di pericolo**



GHS03



GHS05



GHS06



GHS08



GHS09

· **Avvertenza Pericolo**

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

dicromato di potassio

· **Indicazioni di pericolo**

H272 Può aggravare un incendio; comburente.

H330 Letale se inalato.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

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

H317 Può provocare una reazione allergica cutanea.

H340 Può provocare alterazioni genetiche.

H350 Può provocare il cancro.

H360FD Può nuocere alla fertilità. Può nuocere al feto.

H335 Può irritare le vie respiratorie.

H373 Può provocare danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.

H411 Tossico per gli organismi acquatici con effetti di lunga durata.

· **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.

P320 Trattamento specifico urgente (vedere su questa etichetta).

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

P405 Conservare sotto chiave.

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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: 7778-50-9	dicromato di potassio	>2,5-≤10%
EINECS: 231-906-6	Ox. Sol. 2, H272; Acute Tox. 3, H301; Acute Tox. 2, H330; Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Skin Sens. 1, H317	

· **SVHC**

7778-50-9	dicromato di potassio
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- **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.
Levare la maschera protettiva solamente dopo aver tolto gli abiti contaminati.
In caso di respirazione irregolare o di blocco respiratorio praticare la respirazione artificiale.
- **Inalazione:**
Portare il soggetto in zona ben areata o somministrare ossigeno; chiedere l'intervento di un medico.
Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
- **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- **Contatto con gli occhi:**
Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte 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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- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:**
In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.
Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
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.
Aprire e manipolare i recipienti con cautela.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Tener pronto il respiratore.
- **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

- **8.1 Parametri di controllo**
- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.

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· Componenti con valori limite biologici:

7778-50-9 dicromato di potassio

<p>IBE</p>	<p>25 µg/l Campioni: urine Momento del prelievo: a fine turno a fine settimana lavorativa Indicatore biologico: cromo totale</p>
<p></p>	<p>10 µg/l Campioni: urine Momento del prelievo: aumento d.t. Indicatore biologico: cromo totale</p>

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

· **8.2 Controlli dell'esposizione**

· **Mezzi protettivi individuali:**

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

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

· **Maschera protettiva:**

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

· **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione. A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche. Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

· **Materiale dei guanti**

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

IT

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SEZIONE 9: Proprietà fisiche e chimiche

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

· **Indicazioni generali**

· **Aspetto:**

Forma: Liquido

Colore: Arancione

· **Odore:** Inodore

· **Soglia olfattiva:** Non definito.

· **valori di pH a 20 °C:** 4

· **Cambiamento di stato**

Punto di fusione/punto di congelamento: 0 °C

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.

· **Tensione di vapore a 20 °C:** 23 hPa

· **Densità a 20 °C:** 1,0838 g/cm³

· **Densità relativa** Non definito.

· **Densità di vapore:** Non definito.

· **Velocità di evaporazione** Non definito.

· **Solubilità in/Miscibilità con acqua:**

Poco e/o non miscibile.

· **Coefficiente di ripartizione: n-ottanolo/acqua:** Non definito.

· **Viscosità:**

Dinamica: Non definito.

Cinematica: Non definito.

· **Tenore del solvente:**

Acqua: 95,0 %

VOC (CE) 0,00 %

Contenuto solido: 5,0 %

· **9.2 Altre informazioni** Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

· **10.1 Reattività** Non sono disponibili altre informazioni.

· **10.2 Stabilità chimica**

· **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.

· **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.

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- **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**
Letale se inalato.

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

7778-50-9 dicromato di potassio

Orale	LD50	190 mg/kg (mouse)
-------	------	-------------------

- **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**
Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.
Può provocare una reazione allergica cutanea.
- **Ulteriori dati tossicologici:**
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**
Può provocare alterazioni genetiche.
- **Cancerogenicità**
Può provocare il cancro.
- **Tossicità per la riproduzione**
Può nuocere alla fertilità. Può nuocere al feto.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Può provocare danni al sistema respiratorio in caso di esposizione prolungata e ripetuta.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** Tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 3 (D) (Autoclassificazione): molto pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature, anche in piccole dosi.
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di quantità minime di prodotto.
Tossico per pesci e plancton.
tossico per gli organismi acquatici

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- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

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

SEZIONE 14: Informazioni sul trasporto

- | | |
|--|---|
| <ul style="list-style-type: none"> · 14.1 Numero ONU · ADR, IMDG, IATA | <p align="center">UN2810</p> |
| <ul style="list-style-type: none"> · 14.2 Nome di spedizione dell'ONU · ADR · IMDG · IATA | <p>2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (dicromato di potassio), PERICOLOSO PER L'AMBIENTE
TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)</p> |
| <ul style="list-style-type: none"> · 14.3 Classi di pericolo connesso al trasporto · ADR, IMDG | <p>6.1 Materie tossiche
6.1</p> |
| <ul style="list-style-type: none"> · Classe · Etichetta | <p>6.1 Materie tossiche
6.1</p> |
| <ul style="list-style-type: none"> · IATA | <p>6.1 Materie tossiche
6.1</p> |
| <ul style="list-style-type: none"> · 14.4 Gruppo di imballaggio · ADR, IMDG, IATA | <p align="center">III</p> |
| <ul style="list-style-type: none"> · 14.5 Pericoli per l'ambiente: · Marine pollutant: · Marcatatura speciali (ADR): | <p>Il prodotto contiene materie pericolose per l'ambiente: dicromato di potassio
Simbolo (pesce e albero)
Simbolo (pesce e albero)</p> |
| <ul style="list-style-type: none"> · 14.6 Precauzioni speciali per gli utilizzatori · N° identificazione pericolo (Numero Kemler): · Numero EMS: | <p>Attenzione: Materie tossiche
60
F-A,S-A</p> |

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· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR	
· Quantità limitate (LQ)	5L
· Quantità esenti (EQ)	Codice: E1 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 1000 ml
· Categoria di trasporto	2
· Codice di restrizione in galleria	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2810 LIQUIDO ORGANICO TOSSICO, N.A.S. (DICROMATO DI POTASSIO), 6.1, III, PERICOLOSO PER L'AMBIENTE

SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

· **Direttiva 2012/18/UE**

· **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.

· **Categoria Seveso**

H2 TOSSICITÀ ACUTA

P8 LIQUIDI E SOLIDI COMBURENTI

E2 Pericoloso per l'ambiente acquatico

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 50 t**

· **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**

· **ELENCO DELLE SOSTANZE SOGGETTE AD AUTORIZZAZIONE (ALLEGATO XIV)**

7778-50-9 dicromato di potassio

Sunset date: 2017-09-21

· **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3, 28, 29, 30, 47, 72

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

7778-50-9 dicromato di potassio

· **REGOLAMENTO (UE) 2019/1148**

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

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

Nessuno dei componenti è contenuto.

· **Disposizioni nazionali:**

· **Indicazioni relative alla limitazione delle attività lavorative:**

Il personale non deve essere esposto alle sostanze cancerogene contenute in questo preparato L'autorità può ammettere nei singoli casi delle eccezioni.

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

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

7778-50-9 dicromato di potassio

· **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.

· **Frasi rilevanti**

H272 Può aggravare un incendio; comburente.

H301 Tossico se ingerito.

H312 Nocivo per contatto con la pelle.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H330 Letale se inalato.

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

H340 Può provocare alterazioni genetiche.

H350 Può provocare il cancro.

H360FD Può nuocere alla fertilità. Può nuocere al feto.

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

H400 Molto tossico per gli organismi acquatici.

H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.

· **Abbreviazioni e acronimi:**

ADR: Accord relatif au transport international 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Liquidi comburenti – Categoria 2

Ox. Sol. 2: Solidi comburenti – Categoria 2

Acute Tox. 3: Tossicità acuta – Categoria 3

Acute Tox. 4: Tossicità acuta – Categoria 4

Acute Tox. 2: Tossicità acuta – Categoria 2

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

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

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

Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1

Muta. 1B: Mutagenicità sulle cellule germinali – Categoria 1B

Carc. 1B: Cancerogenicità – Categoria 1B

Repr. 1B: Tossicità per la riproduzione – Categoria 1B

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

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

STOT RE 2: Tossicità specifica per organi bersaglio (esposizione ripetuta) – Categoria 2

Aquatic Acute 1: Pericoloso per l'ambiente acquatico - pericolo acuto per l'ambiente acquatico – Categoria 1

Aquatic Chronic 1: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 1

Aquatic Chronic 2: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 2

IT

물질안전보건자료

GHS에 따라라따

인쇄일자: 2022.01.07

개정: 2022.01.07

제품명: POTASSIUM DICHROMATE 5% AQUEOUS

(1 쪽부터계속)

생식세포 변이원성- 구분1B	H340 유전적인 결함을 일으킬 수 있음
발암성 - 구분1B	H350 암을 일으킬 수 있음
생식독성 - 구분1B	H360 태아 또는 생식능력에 손상을 일으킬 수 있음
특정표적장기 독성 - 반복 노출 - 구분2	H373 호흡체계를 장시간 또는 반복된 노출로 인하여 손상시킬 수 있다.



부식

피부 부식성/피부 자극성 - 구분 1	H314 피부에 심한 화상과 눈에 손상을 일으킴
심한 눈 손상성/눈 자극성 - 구분1	H318 눈에 심한 손상을 일으킴



환경

수생환경 유해성 - 만성 - 구분2	H411 장기적인 영향에 의해 수생생물에게 유독함
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피부 과민성은 - 구분1	H317 알레르기성 피부 반응을 일으킬 수 있음
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- 라벨 표기 요소요소
- 라벨 라벨 표기 요소
- 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- GHS 그림문자



- 신호어 위험
- 상표상에명확히위험성이표시된성분:

중크롬산칼륨
유해유해위험문구

화재를 강렬하게 함: 산화제
 흡입하면 치명적임
 피부에 심한 화상과 눈에 손상을 일으킴
 흡입시 알레르기성 반응, 천식 또는 호흡 곤란 등을 일으킬 수 있음
 알레르기성 피부 반응을 일으킬 수 있음
 유전적인 결함을 일으킬 수 있음
 암을 일으킬 수 있음
 태아 또는 생식능력에 손상을 일으킬 수 있음
 호흡체계를 장시간 또는 반복된 노출로 인하여 손상시킬 수 있다.
 장기적인 영향에 의해 수생생물에게 유독함

· 예방 조치문구

가연성 물질과 혼합되지 않도록 조치하십시오.
 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.

(3 쪽에계속)

물질안전보건자료 GHS에 따라라다

인쇄일자: 2022.01.07

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(2 쪽부터 계속)

긴급히(라벨 참조) 처치를 하시오.
오염된 의복은 벗고 다시 사용 전 세척하십시오.
밀봉하여 저장 하시오.
(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기 하시오.

기타 기타

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

3 구성성분의 명칭 및 함유량

· 화학적 특성: 혼합물

설명 설명 설명한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

· 위험 요소

7778-50-9	중크롬산칼륨	>2.5-≤10%
<p>⚠ 산화성 고체 - 구분2, H272; ⚠ 급성 독성 - 경구 - 구분3, H301; 급성 독성 - 흡입 - 구분2, H330; ⚠ 호흡기 과민성 - 구분1, H334; 생식세포 변이원성 - 구분1B, H340; 발암성 - 구분1B, H350; 생식독성 - 구분1B, H360; 특정표적장기 독성 - 반복 노출 - 구분1, H372; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 수생환경 유해성 - 급성 - 구분1, H400; 수생환경 유해성 - 만성 - 구분1, H410; ⚠ 급성 독성 - 경피 - 구분4, H312; 피부 과민성은 - 구분1, H317</p>		

4 응급조치 요령

· 응급조치요령 내용내용

· 일반정보

이제품에 의해 오염된 의상은 즉시 제거한다.
중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.
반드시 오염된 의상을 완전히 제거한 후에 호흡보호기를 떼어낸다.
불규칙적인 호흡이나 호흡정지상태에서는 인공호흡을 실시한다.

· 흡입했을 때:

신선한 공기나 산소를 공급받고, 의료진의 도움을 구한다.
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

· 피부에 접촉했을 때: 즉시 물과 비누로 씻고 잘 행군다.

눈에 눈에 들어갔을 때: 흐르는 물에 눈을 몇분동안 씻어내고 나서, 의사와 상담한다

· 먹었을 때:

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

기타 기타

가장 가장 중요한 위험성 정보 중 가장 중요한 정보가 존재하지 않습니다.

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

5 폭발·화재시 대처방법

· 소화제

· **적절한 소화제:** 주변 환경에 맞는 화재 진화방법을 사용한다.

· **본 화학물질이나 혼합물에서 발생**하는 특별한 위험성 추가적인 정보가 존재하지 않습니다.

(4 쪽에 계속)

물질안전보건자료

GHS에 따라 라다

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(4 쪽부터 계속)

REL (US)	장기간의 값: 0.0002 mg/m ³ as Cr; See Pocket Guide Apps. A and C
TLV (US)	단기간의 값: 0.0005 mg/m ³ 장기간의 값: 0.0002 mg/m ³ as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN

· 생물학적 허용 값을 갖는 화학 원료

7778-50-9 중크롬산칼륨

BEI (US)	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)

· 추가 정보 정보 할 당시에 유효한 목록을 기초로 사용했다.

노출 통제 통제 통제
개인 개인 개인

· **일반적 보호 조치 및 위생 조치:**

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전이나 작업이 끝날 때 마다 손을 씻는다.
- 방호복은 따로 보관한다.
- 눈과의 접촉을 피한다.
- 눈과 피부와의 접촉을 피한다.

· **호흡기 보호 보호**

· 단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출 시에는 호흡 보호 장비를 사용한다.

· **보수 보호 보호**



보호용 장갑

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

· **장갑의 재료**

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

· **장갑 재료의 투과 시간** 정확한 관통 시간은 보호 장갑 제조자에 의하여 인지도고, 준수되어야 한다.

· **보수 보호 보호**



확조이는 보안경

KR

(6 쪽에 계속)

물질안전보건자료 GHS에 따라라따

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(5 쪽부터계속)

9 물리화학적 특성

기본 물리화학적 특성에 대한 정보

· 일반정보	
외형외형의형	액체
· 물리적 상태	오렌지 색
· 색:	무취의
냄새냄새냄새	알맞지않다.
· 후각역치	
· pH 의경우 20 °C:	4
· 상태변화	
· 녹는점/어는점:	0 °C
· 초기초기 녹는 점과 끓는점범위범위	100 °C
· 인화점:	해당사항 없음.
· 인화성 고체/기체/기체	해당사항 없음.
분해분해온도	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다
인화 안전성/폭발 위험성 상한 상한	하한
· 아래로:	알맞지않다.
· 위로위로	알맞지않다.
· 증기압 의경우 20 °C:	23 hPa
밀도 밀도 밀도 의경우 20 °C:	1.0838 g/cm ³
· 비중 비중 비중	알맞지않다.
· 증기밀도:	알맞지않다.
중발 중발 중발 속도	알맞지않다.
· 용해도:	
· 물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
점도 점도 점도	
· 역학성:	알맞지않다.
· 동점성:	알맞지않다.
· 용매 내용물	
· 물:	95.0 %
· VOC (EU)	0.00 %
· 고체 양 함량 함량	5.0 %
기타 정보 정보	추가적인 정보가 존재하지 않습니다.

10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성/유해 반응의 가능성 / 피해 예방 조건 조건에 따라 사용 할 경우 해체는 없다
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해 예방 조건 조건 추가적인 정보가 존재하지 않습니다.

(7 쪽에계속)

물질안전보건자료 GHS에 따라라따

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(6 쪽부터계속)

혼합 **혼합 유해분해물질** 추가적인 정보가 존재하지 않습니다.
· **유해분해물질**: 위험성있는분해물들은알려지지않았다.

11 독성에 관한 정보

· **독성학적 영향에 대한정보**
급성 **독성독성** 독성

· LD/LC50-수 체에 대한분류

7778-50-9 중크롬산칼륨

구강의 LD50	190 mg/kg (mouse)
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· **일차적 자극효과**

피부 **피부 부식성 또는 자극성**: 피부와점막에강한부식작용.

심한 **심한 부식성 또는 자극성**:

강한부식작용
심각한안구상처의위험이있는강한자극

· **감각화**:

호흡을통한감각화가가능성있다.
피부접촉을통하여감각화가가능성있다.

· **추가적인 독성에 관한정보**

이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전 준비에대하여제시하고있다.

건강에해로운

부식작용의

자극적인

맹독성의

삼킬경우식도나위등의내장기관벽에상처를주는위험과마찬가지로입주변이나구강에강한부식작용을한다
압을유발하는

이제품은유전적인장애를유발할수있다.

다음 **다음종의 잠재적인 효과에 대한정보**

· **CMR과 과유발, 유전자변이성 그리고 생식독성**

생식세포 변이원성- 구분1B, 발암성- 구분1B, 생식독성- 구분1B

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.
- **생태독성**:

의견의견의견류에독이됨

· **추가적인 생태학정보**

일반 **일반환경특징**

수질오염등급 3 (자체등급분류): 심하게수질오염이된
지하수나, 하천으로또는하수도망에도달하지않게한다. 역시극소수의양이라도안된다.
회석시키지않은채또는중화시키지않은채하수나배수로에도달하지않게해야한다.
지하수로아주미세한양이유입되었을경우엔이미식수오염상태이다
하천에서는역시물고기나플랑크톤게는독성이있다.
물속의유기체에독이되는것

(8 쪽에계속)

물질안전보건자료

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(7 쪽부터 계속)

- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.
- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.
- 기타 기타 **부작용** 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법
권고 권고 건설 쓰레기와 함께 처리되어서는 안 된다. 하수도망으로 유입되어서는 안 된다.
- 비위생적 포장 포장
권고 권고 바닥의 지침에 입각한 쓰레기 처리.

14 운송에 필요한 정보

유엔 유엔 번호 · ADR, IMDG, IATA	UN2810
적정적 정정명 · ADR · IMDG · IATA	2810 TOXIC LIQUID, ORGANIC, N.O.S. (중크롬산칼륨), ENVIRONMENTALLY HAZARDOUS TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
교통 교통 위험도 · ADR, IMDG 	
등급 등급 등급 · 위험도 라벨 라벨 · IATA 	6.1 독성물질 6.1 6.1 독성물질 6.1
용기 등급 · ADR, IMDG, IATA	III
환경적 유해물질: · 해양 오염물질: 특수 위험 (H373):	이 물질은 환경 오염 물질을 함유하고 있다: 중크롬산칼륨 심벌 (물고기와 나무) 심벌 (물고기와 나무)
이동 시 특별 예방 조치 위험 위험 코드 · E 번호 번호	경고: 독성물질 60 F-A,S-A

(9 쪽에 계속)

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(8 쪽부터 계속)

· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크물질 운송 운송	해당사항 없음.
운송/추가정보	
· ADR 한정 한량 (수량 제한)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
운송 위험성 구분	2
터널/터널/터널/터널 코드	E
· IMDG · Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN번호/위험성/유체	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (중크롬산칼륨), 6.1, III, ENVIRONMENTALLY HAZARDOUS

15 법적 규제 현황

· 산업안전보건법에 의해 규제	체조제조금지물질:
	어떠한 내용물도 목록화되어 있지 않다
· 허가대상물질:	어떠한 내용물도 목록화되어 있지 않다
· 관리대상 유해물질:	7778-50-9 중크롬산칼륨
· 관리대상 유해물질의 종류/중류/중류류:	25
· 작업환경측정 대상 유해인자	7778-50-9 중크롬산칼륨 1B21
· 특수건강 점검 대상 유해인자	7778-50-9 중크롬산칼륨 1B18
해당 해당 수물질 또는 혼합물에 대한 유해인자 정보에 관한 법적 규제를 준수할 것을 법률	
· Korean Existing Chemical Inventory	7732-18-5 물 KE-35400
	7778-50-9 중크롬산칼륨 KE-29094
· 화학물질관리법	
· 사고대비물질	어떠한 내용물도 목록화되어 있지 않다
· 금지물질	어떠한 내용물도 목록화되어 있지 않다

(10 쪽에 계속)

물질안전보건자료

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(10 쪽부터계속)

· 국내규정:

· 사용제한에 대한정보

노동자들은이러한예방준비하에암을유발시키는성분을함유한위험물을버리지말아야한다. 개별적인경우에관청은예외를허가할수있다.

· 화학물질 안전성 평가 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은기술하지않았으며계약적인법을관계에기반을두고있지도않다

당첨당자당자

최초최초작성일자: 2022.01.07

개정개정개정최종개정일자: 1 / 2022.01.07

· 약어와 두문자어:

ADR: Accord relatif au transport international 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

Паспорт безопасности в соответствии с ГОСТ 30333-2007

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1 Идентификация химической продукции и сведения о производителе или поставщике

- **Идентификатор продукта**
- **Торговое наименование: *POTASSIUM DICHROMATE 5% AQUEOUS***
- **Артикульный номер: 20103-4**
- **Соответствующие установленные применения вещества или смеси и не рекомендуемые области использования**
Отсутствует какая-либо соответствующая информация.
- **Применение вещества / препарата** Лабораторные химикаты
- **Подробная информация поставщика паспорта безопасности**
- **Производитель / Поставщик:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Отдел, предоставляющий информацию:** *Product safety department*
- **Номер телефона экстренной связи:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Идентификация опасности (опасностей)

- **Классификация вещества или смеси**



пламя над окружностью

Окисляющая жидкость 2

H272 Может усилить горение; окислитель.



череп и скрещённые кости

Острая токсичность 2

H330 Смертельно при вдыхании.



опасность для здоровья

Респираторная синсбилизация 1

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

Мутагенность 1B

H340 Может вызывать генетические дефекты.

Канцерогенность 1B

H350 Может вызывать рак.

Репродуктивная токсичность 1B

H360 Может нанести ущерб плодовитости или нерожденному ребенку.

СТОМ - повторно 2

H373 При длительном или многократном воздействии может оказывать вредное влияние на дыхательную систему.



коррозия

Разъедание кожи 1B

H314 Вызывает серьезные ожоги кожи и повреждения глаз.

Повреждение глаз 1

H318 Вызывает серьезные повреждения глаз.

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(Продолжение страницы 1)



окружающая среда

Хроническая токсичность для воды 2 H411 Токсично для водных организмов с долгосрочными последствиями.



Кожная сенсibilизация 1

H317 Может вызывать аллергическую кожную реакцию.

Острая токсичность 5

H303 Может нанести вред при проглатывании.

Острая токсичность для воды 2

H401 Токсично для водных организмов.

· **Элементы маркировки**

· **Элементы маркировки в соответствии с СГС**

Данный продукт классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).

· **Пиктограммы, обозначающие опасности**



GHS03



GHS05



GHS06



GHS08



GHS09

· **Сигнальное слово** Опасно

· **Компоненты этикетки, указывающие на опасность:**

Potassium Dichromate

· **Предупреждения об опасности**

Может усилить горение; окислитель.

Может нанести вред при проглатывании.

Смертельно при вдыхании.

Вызывает серьезные ожоги кожи и повреждения глаз.

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

Может вызывать аллергическую кожную реакцию.

Может вызывать генетические дефекты.

Может вызывать рак.

Может нанести ущерб плодovitости или нерожденному ребенку.

При длительном или многократном воздействии может оказывать вредное влияние на дыхательную систему.

Токсично для водных организмов с долгосрочными последствиями.

· **Меры предосторожности**

Принимать любые меры предосторожности для недопущения смешивания с горючими материалами.

ПРИ ПОПАДАНИИ НА КОЖУ (или волосы): Немедленно снять всю загрязненную одежду. Промыть кожу водой/под душем.

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

Немедленно обратиться в ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/к врачу.

Принять срочные специальные меры (см. на этом маркировочном знаке).

Снять загрязненную одежду и промыть ее перед повторным использованием.

Хранить под замком.

Утилизировать содержимое / тару в соответствии с местными / региональными / национальными / международными предписаниями.

(Продолжение на странице 3)

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(Продолжение страницы 2)

- **Другие опасные факторы**
- **Результаты оценки PBT (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **PBT:** Неприменимо.
- **vPvB:** Неприменимо.

3 Состав (информация о компонентах)

- **Химическая характеристика: Смеси**
- **Описание:** Смесь из веществ, перечисленных ниже, с неопасными добавками.

· Содержащиеся опасные вещества:

7778-50-9	Potassium Dichromate	>2,5-≤10%
	<ul style="list-style-type: none"> ⚠ Окисляющее твёрдое вещество 2, H272; ⚠ Острая токсичность 3, H301; Острая токсичность 2, H330; ⚠ Респираторная синсбилизация 1, H334; Мутагенность 1B, H340; Канцерогенность 1B, H350; Репродуктивная токсичность 1B, H360; СТОМ - повторно 1, H372; ⚠ Разъедание кожи 1B, H314; ⚠ Острая токсичность для воды 1, H400; Хроническая токсичность для воды 1, H410; ⚠ Острая токсичность 4, H312; Кожная синсбилизация 1, H317 	

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

4 Меры первой помощи

- **Описание мер первой медицинской помощи**
- **Общие указания:**
Немедленно снять предметы одежды, загрязнённые данным продуктом.
Симптомы отравления могут проявиться даже спустя много часов, поэтому имеется необходимость в медицинском надзоре в течение как минимум 48 часов после аварии (несчастного случая).
Снимать средства защиты дыхательных путей только после того, как были сняты все заражённые предметы одежды.
При неровном дыхании или при остановке дыхания сделать пострадавшему искусственное дыхание.
- **После вдыхания:**
Обеспечить доступ свежего воздуха или кислорода, вызвать врача.
При потере сознания (обморочном состоянии) положить пациента на бок в стабильном положении для транспортировки.
- **После контакта с кожей:** Немедленно промыть с помощью воды и мыла, хорошо сполоснуть.
- **После контакта с глазами:**
Промыть открытый глаз под проточной водой в течение нескольких минут, затем обратиться к врачу.
- **После проглатывания:**
Немедленно вызвать врача.
Выпить обильное количество воды и обеспечить доступ свежего воздуха. Немедленно вызвать врача.
- **Указания для врача:**
· **Наиболее важные симптомы и эффекты, как немедленные, так и проявляющиеся впоследствии**
Отсутствует какая-либо соответствующая информация.
· **Указание на необходимость оперативной медицинской помощи и специального режима**
Отсутствует какая-либо соответствующая информация.

5 Меры и средства обеспечения пожаровзрывобезопасности

- **Средства пожаротушения**
- **Надлежащие средства тушения:**
Предпринять меры по тушению пожара, соответствующие окружающим условиям.

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(Продолжение страницы 3)

- **Особые опасности, создаваемые веществом или смесью**
Отсутствует какая-либо соответствующая информация.
- **Рекомендации для пожарных**
- **Защитное оснащение:** Применение устройства защиты дыхательных путей.

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

- **Меры по обеспечению личной безопасности, защитное снаряжение и порядок действий в чрезвычайной ситуации**
Надеть защитное снаряжение. Держать на расстоянии незащищённых людей.
- **Меры по защите окружающей среды:**
При попадании в водоёмы или в канализационную систему проинформировать об этом соответствующие службы.
Не допускать попадания в канализационную систему / поверхностные или грунтовые воды.
- **Методы и материалы для локализации и очистки:**
Собрать при помощи связывающего жидкость материала (песка, кизельгура, кислотно-вяжущего средства, универсальных вяжущих средств, опилок).
Воспользоваться нейтрализующими средствами.
Утилизировать заражённый материал как отходы в соответствии с Пунктом 13.
Обеспечить достаточную вентиляцию.
- **Ссылки на другие разделы**
Информация по безопасному обращению - в Главе 7.
Информация по индивидуальному защитному снаряжению - в Главе 8.
Информация по утилизации - в Главе 13.

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

- **Обращение с веществом:**
- **Меры предосторожности по безопасному обращению**
Обеспечить хорошую вентиляцию / вытяжку на рабочем месте.
Соблюдать осторожность при открывании ёмкостей и при обращении с ними.
Не допускать образования аэрозолей.
- **Указания по защите от пожаров и взрывов:** Держать наготове устройство защиты органов дыхания.
- **Условия безопасного хранения, включая несовместимости**
- **Хранение:**
- **Требования, предъявляемые к складским помещениям и таре:**
Никаких особенных требований не предъявляется.
- **Указания по совместимости с другими веществами при хранении:** Не требуется.
- **Дальнейшие данные по условиям хранения:** Держать ёмкости плотно закрытыми.
- **Характерное конечное применение (или применения)**
Отсутствует какая-либо соответствующая информация.

8 Средства контроля за опасным воздействием и средства индивидуальной защиты

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

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· **Параметры контроля**

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

7778-50-9 Potassium Dichromate

PDK	ПДК с.с.: 0,01 мг/м ³ в пересчёте на Cr
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· **Дополнительные указания:**

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

· **Требования по охране труда и меры по обеспечению безопасности персонала**

· **Средства индивидуальной защиты:**

· **Общие меры по защите от воздействия и гигиене:**

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

Немедленно снять всю загрязнённую и пропитанную вредными веществами одежду.

Мыть руки перед перерывами и по окончании работы.

Хранить защитную одежду отдельно.

Избегать контакта с глазами.

Избегать контакта с глазами и с кожей.

· **Защита органов дыхания:**

При кратковременном контакте с веществом или при воздействии вещества низкой концентрации пользоваться фильтрующим устройством для защиты органов дыхания. При интенсивном или более продолжительном контакте следует воспользоваться автономным устройством защиты органов дыхания.

· **Защита рук:**



Защитные перчатки (рукавицы).

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

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

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

· **Материал перчаток / рукавиц**

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

· **Период проницаемости материала перчаток / рукавиц.**

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

· **Защита глаз:**



Плотно прилегающие защитные очки

RU

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9 Физико-химические свойства

· **Информация по основным физическим и химическим свойствам**

· **Общая информация**

· **Внешний вид:**

Форма:

Жидкость

Цвет:

Оранжевое

· **Запах:**

Без запаха

· **Порог запаха:**

Не определено.

· **Значение pH при 20 °C:**

4

· **Изменение состояния**

Точка плавления / интервал температур плавления:

0 °C

Точка кипения / интервал температур кипения:

100 °C

· **Температурная точка вспышки:**

Неприменимо.

· **Воспламеняемость (твёрдое, газообразное вещество):**

Неприменимо.

· **Температура распада:**

Не определено.

· **Самовоспламеняемость:**

Продукт не является самовоспламеняемым.

· **Взрывоопасность:**

Продукт не является взрывоопасным.

· **Границы взрываемости:**

Нижняя:

Не определено.

Верхняя:

Не определено.

· **Давление пара при 20 °C:**

23 гПа

· **Плотность при 20 °C:**

1,0838 г/см³

· **Относительная плотность**

Не определено.

· **Плотность пара**

Не определено.

· **Скорость испарения**

Не определено.

· **Растворимость в / Смешиваемость с водой:**

Несмешиваемо или трудносмешиваемо.

· **Коэффициент распределения (n-октанол / вода):**

Не определено.

· **Вязкость:**

Динамическая:

Не определено.

Кинематическая:

Не определено.

· **Содержание растворителя:**

Вода:

95,0 %

VOC (EC)

0,00 %

Содержание твёрдых тел:

5,0 %

· **Другая информация**

Отсутствует какая-либо соответствующая информация.

10 Стабильность и реакционная способность

· **Реакционная способность** Отсутствует какая-либо соответствующая информация.

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

11 Информация о токсичности

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

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

7778-50-9 Potassium Dichromate

Орально (через рот)	LD50	190 мг/кг (mouse)
---------------------	------	-------------------

- **Первичное раздражающее воздействие:**
- **на кожу:** Сильное едкое воздействие на кожу и слизистые оболочки.
- **на глаза:**
Сильное разъедающее воздействие.
Сильный раздражитель с опасностью серьёзного повреждения глаз.
- **Сенсибилизация:**
Сенсибилизация возможна посредством вдыхания.
Сенсибилизация возможна посредством кожного контакта.
- **Дополнительные токсикологические указания:**
На основании расчётного метода Всеобщей Классификационной Директивы ЕС для Препаратов в её последней (актуальной) редакции продукт представляет следующие виды опасности:
Вредно для здоровья
Едко
Раздражающе
Очень ядовито
Проглатывание приводит к сильному разъедающему воздействию в полости рта и глотки, а также к опасности перфорации пищевода и желудка.
Вызывает рак
Продукт может привести к повреждениям, передаваемым по наследству.
- **Информация по следующим группам потенциальных воздействий:**
- **Канцерогенное, изменяющее наследственность и вызывающее бесплодие действие**
Мутагенность 1B, Канцерогенность 1B, Репродуктивная токсичность 1B

12 Информация о воздействии на окружающую среду

- **Токсичность**
- **Акватоксичность:** Отсутствует какая-либо соответствующая информация.
- **Стойкость и склонность к деградации** Отсутствует какая-либо соответствующая информация.
- **Поведение в экологических системах:**
- **Биоаккумулятивный потенциал** Отсутствует какая-либо соответствующая информация.
- **Подвижность в грунте** Отсутствует какая-либо соответствующая информация.
- **Экотоксические воздействия:**
- **Примечания:** Ядовито для рыб.

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(Продолжение страницы 7)

- **Дополнительные экологические указания:**
- **Общие указания:**
 Класс вредности для воды 3 (Само-классификация): очень вредно для воды
 Не допускать попадания продукта в грунтовые воды, водоёмы или в канализационную систему, даже в малых количествах.
 Попадание в сточные воды или в водоприёмник в неразбавленном или в не-нейтрализованном виде недопустимо.
 Вред для питьевой воды при попадании под землю даже минимальных количеств.
 В водоёмах ядовито также для рыб и планктона.
 Ядовито для водных организмов.
- **Результаты оценки РВТ (устойчивое биоаккумулятивное токсическое вещество) и vPvB (очень устойчивое биоаккумулятивное вещество)**
- **РВТ:** Неприменимо.
- **vPvB:** Неприменимо.
- **Другие вредные эффекты** Отсутствует какая-либо соответствующая информация.

13 Рекомендации по удалению отходов (остатков)

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

14 Информация при перевозках (транспортировании)

- | | |
|---|--|
| · Номер UN | UN2810 |
| · ADR, IMDG, IATA | |
| · Собственное транспортное наименование ООН | 2810 ТОКСИЧНАЯ ЖИДКОСТЬ ОРГАНИЧЕСКАЯ, Н.У.К (Potassium Dichromate), ОПАСНОЕ ДЛЯ ОКРУЖАЮЩЕЙ СРЕДЫ |
| · ADR | |
| · IMDG | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT |
| · IATA | TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate) |
| · классов опасности транспорта | |
| · ADR, IMDG | |
|   | |
| · Класс | 6.1 Токсичные вещества |

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· Этикетка для опасного содержимого	6.1
· IATA	
	
· Class	6.1 Токсичные вещества
· Label	6.1
· Группа упаковки	
· ADR, IMDG, IATA	III
· Экологические риски:	Продукт содержит вещества, опасные для окружающей среды: Potassium Dichromate
· Загрязнитель морской среды:	Символ (рыба и дерево)
· Особые отметки (ADR):	Символ (рыба и дерево)
· Особые меры предосторожности для пользователей	Осторожно: Токсичные вещества
· Идентификационный номер опасности (Код опасности по Кемлеру):	60
· Номер EMS:	F-A,S-A
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· Транспортировка навалом в соответствии с Приложением II MARPOL73/78 (Международная конвенция по предотвращению загрязнения вод с судов) и IBC Code (Международный кодекс перевозок опасных химических грузов наливом)	Неприменимо.
· Транспорт / дополнительная информация:	
· ADR	
· Ограниченные объёмы (LQ)	5L
· Освобожденные количества (EQ)	Код: E1 Максимальное количество нетто на внутреннюю тару: 30 мл Максимальное количество нетто на наружную тару: 1000 мл
· Транспортная категори	2
· Код ограничения проезда через туннели	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 мл Maximum net quantity per outer packaging: 1000 мл
· UN "Model Regulation":	UN 2810 ТОКСИЧНАЯ ЖИДКОСТЬ ОРГАНИЧЕСКАЯ, Н.У.К (POTASSIUM DICHROMATE), 6.1, III, ОПАСНОЕ ДЛЯ ОКРУЖАЮЩЕЙ СРЕДЫ

RU

(Продолжение на странице 10)

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15 Информация о национальном и международном законодательстве

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



GHS03 GHS05 GHS06 GHS08 GHS09

- **Сигнальное слово** Опасно
- **Компоненты этикетки, указывающие на опасность:**
Potassium Dichromate
- **Предупреждения об опасности**
 Может усилить горение; окислитель.
 Может нанести вред при проглатывании.
 Смертельно при вдыхании.
 Вызывает серьезные ожоги кожи и повреждения глаз.
 При вдыхании может вызывать аллергические или астматические симптомы или затруднение дыхания.
 Может вызывать аллергическую кожную реакцию.
 Может вызывать генетические дефекты.
 Может вызывать рак.
 Может нанести ущерб плодovitости или нерожденному ребенку.
 При длительном или многократном воздействии может оказывать вредное влияние на дыхательную систему.
 Токсично для водных организмов с долгосрочными последствиями.
- **Меры предосторожности**
 Принимать любые меры предосторожности для недопущения смешивания с горючими материалами.
ПРИ ПОПАДАНИИ НА КОЖУ (или волосы): Немедленно снять всю загрязненную одежду. Промыть кожу водой/под душем.
ПРИ ПОПАДАНИИ В ГЛАЗА: Осторожно промыть глаза водой в течение нескольких минут. Снять контактные линзы, если вы пользуетесь ими и если это легко сделать. Продолжить промывание глаз.
 Немедленно обратиться в **ТОКСИКОЛОГИЧЕСКИЙ ЦЕНТР/к врачу**.
 Принять срочные специальные меры (см. на этом маркировочном знаке).
 Снять загрязненную одежду и промыть ее перед повторным использованием.
 Хранить под замком.
 Утилизировать содержимое / тару в соответствии с местными / региональными / национальными / международными предписаниями.
- **Национальные предписания:**
- **Указания по ограничению использования:**
Сотрудников нельзя подвергать воздействию вызывающих рак опасных веществ, содержащихся в данном препарате. В отдельных случаях компетентные службы могут допустить исключения.
- **Оценка химической безопасности:** Оценка химической безопасности не проведена.

16 Дополнительная информация

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

(Продолжение на странице 11)

**Паспорт безопасности
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(Продолжение страницы 10)

· **Соответствующие данные**

H272 Может усилить горение; окислитель.

H301 Токсично при проглатывании.

H312 Наносит вред при контакте с кожей.

H314 Вызывает серьезные ожоги кожи и повреждения глаз.

H317 Может вызывать аллергическую кожную реакцию.

H330 Смертельно при вдыхании.

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

H340 Может вызывать генетические дефекты.

H350 Может вызывать рак.

H360 Может нанести ущерб плодовитости или нерожденному ребенку.

H372 Наносит вред органам в результате длительного или многократного воздействия.

H400 Весьма токсично для водных организмов.

H410 Весьма токсично для водных организмов с долгосрочными последствиями.

· **Контактная информация:**

· **Аббревиатуры и акронимы:**

ADR: Accord relatif au transport international 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

Окисляющая жидкость 2: Oxidizing liquids – Category 2

Окисляющее твердое вещество 2: Oxidizing solids – Category 2

Острая токсичность 3: Acute toxicity – Category 3

Острая токсичность 5: Acute toxicity – Category 5

Острая токсичность 4: Acute toxicity – Category 4

Острая токсичность 2: Acute toxicity – Category 2

Разъедание кожи 1B: Skin corrosion/irritation – Category 1B

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

Респираторная сенсибилизация 1: Respiratory sensitisation – Category 1

Кожная сенсибилизация 1: Skin sensitisation – Category 1

Мутагенность 1B: Germ cell mutagenicity – Category 1B

Канцерогенность 1B: Carcinogenicity – Category 1B

Репродуктивная токсичность 1B: Reproductive toxicity – Category 1B

СТОМ - повторно 1: Specific target organ toxicity (repeated exposure) – Category 1

СТОМ - повторно 2: Specific target organ toxicity (repeated exposure) – Category 2

Острая токсичность для воды 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Острая токсичность для воды 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Хроническая токсичность для воды 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Хроническая токсичность для воды 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 07.01.2022

Revisión: 07.01.2022

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

· 1.1 Identificador del producto

· **Nombre comercial:** POTASSIUM DICHROMATE 5% AQUEOUS

· **Número del artículo:** 20103-4

· **UFI:** 0Q62-20XN-200G-14T0

· 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**



GHS03 llama sobre un círculo

Ox. Liq. 2

H272

Puede agravar un incendio; comburente.



GHS06 calavera y tibias cruzadas

Acute Tox. 2

H330

Mortal en caso de inhalación.



GHS08 peligro para la salud

Resp. Sens. 1

H334

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

Muta. 1B

H340

Puede provocar defectos genéticos.

Carc. 1B

H350

Puede provocar cáncer.

Repr. 1B

H360FD

Puede perjudicar a la fertilidad. Puede dañar al feto.

STOT RE 2

H373

Puede provocar daños en el sistema respiratorio tras exposiciones prolongadas o repetidas

(se continua en página 2)

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(se continua en página 1)



GHS05 corrosión

Skin Corr. 1B H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

Eye Dam. 1 H318 Provoca lesiones oculares graves.



GHS09 medio ambiente

Aquatic Chronic 2 H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

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

STOT SE 3 H335 Puede irritar las vías respiratorias.

· 2.2 Elementos de la etiqueta

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

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

· Pictogramas de peligro



GHS03



GHS05



GHS06



GHS08



GHS09

· Palabra de advertencia Peligro

· Componentes peligrosos a indicar en el etiquetaje:

dicromato de potasio

· Indicaciones de peligro

H272 Puede agravar un incendio; comburente.

H330 Mortal en caso de inhalación.

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

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

H317 Puede provocar una reacción alérgica en la piel.

H340 Puede provocar defectos genéticos.

H350 Puede provocar cáncer.

H360FD Puede perjudicar a la fertilidad. Puede dañar al feto.

H335 Puede irritar las vías respiratorias.

H373 Puede provocar daños en el sistema respiratorio tras exposiciones prolongadas o repetidas

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· 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.

P320 Se necesita urgentemente un tratamiento específico (ver en esta etiqueta).

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

(se continua en página 3)

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(se continua en página 2)

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: 7778-50-9	dicromato de potasio	>2,5-≤10%
EINECS: 231-906-6	Ox. Sol. 2, H272; Acute Tox. 3, H301; Acute Tox. 2, H330; Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1B, H350; Repr. 1B, H360FD; STOT RE 1, H372; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Skin Sens. 1, H317	

· SVHC

7778-50-9	dicromato de potasio
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- Indicaciones adicionales: El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

SECCIÓN 4: Primeros auxilios

- 4.1 Descripción de los primeros auxilios
- Instrucciones generales:
 - Quitarse de inmediato toda prenda contaminada con el producto.
 - Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.
 - Antes de quitarse la protección respiratoria, quítese la ropa contaminada.
 - En caso de respiración irregular o apnea (paro respiratorio), hágase la respiración artificial.
- En caso de inhalación del producto:
 - Suministrar aire fresco u oxígeno; solicitar ayuda médica.
 - Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
- En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.
- En caso de con los ojos:
 - Limpiar los ojos abiertos durante varios minutos con agua corriente 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.

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- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** Colocarse la protección respiratoria.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**
Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**
Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.
Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
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.
Abrir y manejar el recipiente con cuidado.
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

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

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

7778-50-9 dicromato de potasio

LEP	Valor de larga duración: 0,05 mg/m ³ C1B, M1B, Sen,r,TR1B
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· **Componentes con valores límite biológicos:**

7778-50-9 dicromato de potasio

VLB 10 µg/l

Muestra: en orina

Momento de Muestero: Principio y final de la jornada laboral

Indicador Biológico: Cromo total

25 µg/l

Muestra: en orina

Momento de Muestero: Final de la semana laboral

Indicador Biológico: Cromo total

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

· **8.2 Controles de la exposición**

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

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

Guardar la ropa protectora por separado.

Evitar el contacto con los ojos.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

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

· **Protección de manos:**



Guantes de protección

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

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

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

· **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

ES

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SECCIÓN 9: Propiedades físicas y químicas

· 9.1 Información sobre propiedades físicas y químicas básicas

· Datos generales

· Aspecto:

Forma:	Líquido
Color:	Anaranjado
Olor:	Inodoro
Umbral olfativo:	No determinado.

· valor pH a 20 °C: 4

· Cambio de estado

Punto de fusión/punto de congelación:	0 °C
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.

· Presión de vapor a 20 °C: 23 hPa

Densidad a 20 °C:	1,0838 g/cm ³
Densidad relativa	No determinado.
Densidad de vapor	No determinado.
Tasa de evaporación:	No determinado.

· Solubilidad en / miscibilidad con agua: Poco o no mezclable.

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

· Viscosidad:

Dinámica:	No determinado.
Cinemática:	No determinado.

· Concentración del disolvente:

Agua:	95,0 %
VOC (CE)	0,00 %

Contenido de cuerpos sólidos: 5,0 %

· 9.2 Otros datos No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

· 10.1 Reactividad No existen más datos relevantes disponibles.

· 10.2 Estabilidad química

· Descomposición térmica / condiciones que deben evitarse: No se descompone al emplearse adecuadamente.

· 10.3 Posibilidad de reacciones peligrosas No se conocen reacciones peligrosas.

· 10.4 Condiciones que deben evitarse No existen más datos relevantes disponibles.

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- **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**
Mortal en caso de inhalación.

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

7778-50-9 dicromato de potasio

Oral	LD50	190 mg/kg (mouse)
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- **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**
Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.
Puede provocar una reacción alérgica en la piel.
- **Indicaciones toxicológicas adicionales:**
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
Puede provocar defectos genéticos.
- **Carcinogenicidad**
Puede provocar cáncer.
- **Toxicidad para la reproducción**
Puede perjudicar a la fertilidad. Puede dañar al feto.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
Puede irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
Puede provocar daños en el sistema respiratorio tras exposiciones prolongadas o repetidas
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Efectos ecotóxicos:**
- **Observación:** Tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 3 (autoclasiificación): muy peligroso para el agua
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados, ni siquiera en pequeñas cantidades.
En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.
Una cantidad ínfima vertida en el subsuelo ya representa un peligro para el agua potable.
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.
tóxico para organismos acuáticos

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

SECCIÓN 13: Consideraciones relativas a la eliminación

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

SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN2810
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P. (dicromato de potasio), PELIGROSO PARA EL MEDIO AMBIENTE
- **IMDG** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
- **IATA** TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate)
- **14.3 Clase(s) de peligro para el transporte**
- **ADR, IMDG**
- 

- **Clase** 6.1 Materias tóxicas
- **Etiqueta** 6.1
- **IATA**
- 
- **Class** 6.1 Materias tóxicas
- **Label** 6.1
- **14.4 Grupo de embalaje**
- **ADR, IMDG, IATA** III
- **14.5 Peligros para el medio ambiente:**
- **Contaminante marino:** El producto contiene materias peligrosas para el medio ambiente: dicromato de potasio
- **Marcado especial (ADR):** Símbolo (pez y árbol)
- **Marcado especial (ADR):** Símbolo (pez y árbol)
- **14.6 Precauciones particulares para los usuarios** Atención: Materias tóxicas

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· Número de identificación de peligro (Número Kemler):	60
· Número EMS:	F-A,S-A
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC	No aplicable.
· Transporte/datos adicionales:	
· ADR	
· Cantidades limitadas (LQ)	5L
· Cantidades exceptuadas (EQ)	Código: E1 Cantidad neta máxima por envase interior: 30 ml Cantidad neta máxima por embalaje exterior: 1000 ml
· Categoría de transporte	2
· Código de restricción del túnel	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· "Reglamentación Modelo" de la UNECE:	UN 2810 LÍQUIDO TÓXICO, ORGÁNICO, N.E.P. (DICROMATO DE POTASIO), 6.1, III, PELIGROSO PARA EL MEDIO AMBIENTE

SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **Categoría Seveso**
H2 TOXICIDAD AGUDA
P8 LÍQUIDOS Y SÓLIDOS COMBURENTES
E2 Peligroso para el medio ambiente acuático
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 50 t**
- **Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 200 t**

· LISTA DE SUSTANCIAS SUJETAS A AUTORIZACIÓN (ANEXO XIV)

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- **REGLAMENTO (CE) n° 1907/2006 ANEXO XVII** Restricciones: 3, 28, 29, 30, 47, 72

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

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

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

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

ninguno de los componentes está incluido en una lista

· **Disposiciones nacionales:**

· **Indicaciones sobre las limitaciones de trabajo:**

Los empleados no deben exponerse a las sustancias cancerígenas contenidas en el producto. En casos aislados las autoridades pueden hacer excepciones.

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

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

7778-50-9 dicromato de potasio

· **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**

H272 Puede agravar un incendio; comburente.

H301 Tóxico en caso de ingestión.

H312 Nocivo en contacto con la piel.

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

H317 Puede provocar una reacción alérgica en la piel.

H330 Mortal en caso de inhalación.

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

H340 Puede provocar defectos genéticos.

H350 Puede provocar cáncer.

H360FD Puede perjudicar a la fertilidad. Puede dañar al feto.

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

H400 Muy tóxico para los organismos acuáticos.

H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· **Abreviaturas y acrónimos:**

ADR: Accord relatif au transport international 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Líquidos comburentes – Categoría 2

Ox. Sol. 2: Sólidos comburentes – Categoría 2

Acute Tox. 3: Toxicidad aguda – Categoría 3

Acute Tox. 4: Toxicidad aguda – Categoría 4

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*Acute Tox. 2: Toxicidad aguda – Categoría 2**Skin Corr. 1B: Corrosión o irritación cutáneas – Categoría 1B**Eye Dam. 1: Lesiones oculares graves o irritación ocular – Categoría 1**Resp. Sens. 1: Sensibilización respiratoria – Categoría 1**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Muta. 1B: Mutagenicidad en células germinales – Categoría 1B**Carc. 1B: Carcinogenicidad – Categoría 1B**Repr. 1B: Toxicidad para la reproducción – Categoría 1B**STOT SE 3: Toxicidad específica en determinados órganos (exposición única) – Categoría 3**STOT RE 1: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 1**STOT RE 2: Toxicidad específica en determinados órganos (exposiciones repetidas) – Categoría 2**Aquatic Acute 1: Peligroso para el medio ambiente acuático - peligro acuático agudo – Categoría 1**Aquatic Chronic 1: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 1**Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2*

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