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: sgkcek@aol.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**
  - **Ox. Liq. 2** H272 May intensify fire; oxidizer.
  - **Eye Dam. 1** H318 Causes serious eye damage.

- **Resp. Sens. 1** H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  - **Muta. 1A** H340 May cause genetic defects.
  - **Carc. 1A** H350 May cause cancer.
  - **Repr. 1A** H360 May damage fertility or the unborn child.
  - **STOT RE 1** H372 Causes damage to organs through prolonged or repeated exposure.

- **Skin Irrit. 2** H315 Causes skin irritation.
  - **Skin Sens. 1** H317 May cause an allergic skin reaction.
  - **STOT SE 3** H335 May cause respiratory irritation.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

· Hazard pictograms
  
  GHS03  GHS05  GHS07  GHS08

· Signal word Danger

· Hazard-determining components of labeling:
  Potassium Dichromate

· Hazard statements
  May intensify fire; oxidizer.
  Harmful if inhaled.
  Causes skin irritation.
  Causes serious 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 respiratory irritation.
  Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements
  Take any precaution to avoid mixing with combustibles.
  Keep away from heat.
  Do not breathe dust/fume/gas/mist/vapors/spray.
  [In case of inadequate ventilation] wear respiratory protection.
  Keep/Store away from clothing/combustible materials.
  Wear protective gloves / eye protection / face protection.
  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.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Immediately call a POISON CENTER/doctor.
  Specific treatment (see on this label).
  If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Wash contaminated clothing before reuse.
  IF exposed or concerned: Get medical advice/attention.
  If skin irritation or rash occurs: Get medical advice/attention.
  Get medical advice/attention if you feel unwell.
  In case of fire: Use for extinction: CO2, powder or water spray.
  IF ON SKIN: Wash with plenty of water.
  Take off contaminated clothing and wash it before reuse.
  Store locked up.
  Store in a well-ventilated place. Keep container tightly closed.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- Classification system:
- NFPA ratings (scale 0 - 4)
  
  Health = 2
  Fire = 0
  Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  
  HEALTH  
  Health = 2
  FIRE  
  Fire = 0
  REACTIVITY  
  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:

<table>
<thead>
<tr>
<th>Chemical Code</th>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9</td>
<td>Potassium Dichromate</td>
<td>2,5-10%</td>
</tr>
</tbody>
</table>

4 First-aid measures

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

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **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).
  - 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:**
    - Protect from heat.
    - 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.
    - Protect from heat and direct sunlight.
  - **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**
    - 7778-50-9 Potassium Dichromate
      - **PEL**
        - Long-term value: 0.005* mg/m³
        - Ceiling limit value: 0.1** mg/m³
        - *as Cr(VI) **as CrO3; see 29 CFR 1910.1026
      - **REL**
        - Long-term value: 0.0002 mg/m³
        - as Cr; See Pocket Guide Apps. A and C

(Contd. of page 3)

(Contd. on page 5)
Safety Data Sheet
acc. to OSHA HCS

Printing date 12/29/2015 Reviewed on 12/29/2015

Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>TLV</th>
<th>Long-term value: 0.05 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>as Cr; BEI</td>
</tr>
</tbody>
</table>

- Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>7778-50-9 Potassium Dichromate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI 25 µg/L</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift at end of workweek</td>
</tr>
<tr>
<td>Parameter: Total chromium (fume)</td>
</tr>
</tbody>
</table>

| Time: increase during shift |
| Parameter: Total chromium (fume) |
| Medium: urine                |

- 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 skin.
  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

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH-value at 20 °C (68 °F):</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Not flammable.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Auto igniting:</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor pressure at 20 °C (68 °F):</strong></td>
<td>23 hPa (17 mm Hg)</td>
</tr>
<tr>
<td><strong>Density at 20 °C (68 °F):</strong></td>
<td>1.0838 g/cm³ (9.044 lbs/gal)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solvent content:</strong></td>
<td></td>
</tr>
<tr>
<td>Organic solvents:</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Water:</td>
<td>95.0 %</td>
</tr>
<tr>
<td>VOC content:</td>
<td>0.0 g/l / 0.00 lb/gl</td>
</tr>
<tr>
<td><strong>Solids content:</strong></td>
<td>5.0 %</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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.
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- 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:

    | Chemical          | LD50 (mg/kg) | Route |
    |-------------------|--------------|-------|
    | 7778-50-9 Potassium Dichromate | 190 | Oral |

- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: 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
  - Irritant
  - Carcinogenic.
  - The product can cause inheritable damage.

- Carcinogenic categories

  - IARC (International Agency for Research on Cancer)
    | 7778-50-9 Potassium Dichromate | 1 |
  - NTP (National Toxicology Program)
    | 7778-50-9 Potassium Dichromate | K |
  - 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.
  - Ecotoxicical 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.
    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
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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, IATA Toxic, liquids, organic, n.o.s. (Potassium Dichromate)
  - ADR 2810 Toxic, liquids, organic, n.o.s. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS
  - IMDG TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
- Transport hazard class(es)
  - DOT  6.1 Toxic substances
    - Class 6.1
    - Label 6.1
  - ADR, IMDG  6.1 Toxic substances
    - Class 6.1
    - Label 6.1
  - IATA  6.1 Toxic substances
    - Class 6.1
    - Label 6.1
## Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

### 42.0

- **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

- **Danger code (Kemler):**
  - 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

- **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, LIQUIDS, 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 ingredients are listed.

- **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
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- 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 established by ACGIH)
    - 7778-50-9 Potassium Dichromate A1
  - 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
  - GHS07
  - GHS08

- Signal word Danger

- Hazard-determining components of labeling:
  - Potassium Dichromate

- Hazard statements
  - May intensify fire; oxidizer.
  - Harmful if inhaled.
  - Causes skin irritation.
  - Causes serious 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 respiratory irritation.
  - Causes damage to organs through prolonged or repeated exposure.

- Precautionary statements
  - Take any precaution to avoid mixing with combustibles.
  - Keep away from heat.
  - Do not breathe dust/fume/gas/mist/vapors/spray.
  - In case of inadequate ventilation wear respiratory protection.
  - Keep/Store away from clothing/combustible materials.
  - Wear protective gloves / eye protection / face protection.
  - 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.
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use for extinction: CO2, powder or water spray.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
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.

Date of preparation / last revision 12/29/2015 / -

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
Carc. 1A: Carcinogenicity, Hazard Category 1A
Repr. 1A: Reproductive toxicity, Hazard Category 1A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
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: sgkck@aol.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)

  - **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 Hazards identification

- **Classification of the substance or mixture**

- **GHS03 flame over circle**

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

- **GHS08 health hazard**

  Resp. Sens. 1  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  Muta. 1A  H340  May cause genetic defects.
  Carc. 1A  H350  May cause cancer.
  Repr. 1A  H360  May damage fertility or the unborn child.
  STOT RE 1  H372  Causes damage to organs through prolonged or repeated exposure.

(Contd. on page 2)
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

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

Hazard pictograms
- GHS03
- GHS05
- GHS07
- GHS08

Signal word Danger

Hazard-determining components of labelling:
Potassium Dichromate

Hazard statements
- May intensify fire; oxidiser.
- Harmful if inhaled.
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- May cause an allergic skin reaction.
- May cause genetic defects.
- May cause cancer.
- May damage fertility or the unborn child.
- May cause respiratory irritation.
- Causes damage to organs through prolonged or repeated exposure.

Precautionary statements
- Take any precaution to avoid mixing with combustibles.
- Keep away from heat.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- [In case of inadequate ventilation] wear respiratory protection.
- Keep/Store away from clothing/combustible materials.
- Wear protective gloves / eye protection / face protection.
- 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.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Safety data sheet  
according to 1907/2006/EC, Article 31  

Printing date 29.12.2015  
Revision: 29.12.2015  

Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use for extinction: CO2, powder or water spray.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

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

3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9 Potassium Dichromate</td>
<td>2.5-10%</td>
</tr>
</tbody>
</table>

· SVHC
| 7778-50-9 Potassium Dichromate |

· Additional information: For the wording of the listed risk phrases refer to section 16.
5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
  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). 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:**
  Protect from heat. 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. Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

#### Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9</td>
<td>Potassium Dichromate</td>
<td>Sen, as Cr 0.05 mg/m³</td>
</tr>
</tbody>
</table>

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

### 43. 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 skin.
  - 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**
  - **Form:** Liquid
  - **Colour:** Orange
  - **Odour:** Odourless
  - **Odour threshold:** Not determined.
### 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:

<table>
<thead>
<tr>
<th>7778-50-9 Potassium Dichromate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
· Skin corrosion/irritation Irritant to skin and mucous membranes.
· Serious eye damage/irritation 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
  Irritant
  Carcinogenic.
The product can cause inheritable damage.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  Muta. 1A, Carc. 1A, Repr. 1A

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.
  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.

(Contd. on page 8)
14 Transport information

- **UN-Number**
  - ADG, IMDG, IATA UN2810

- **UN proper shipping name**
  - ADG
    
  2810 TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS
  
  - IMDG
    
  TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
  
  - IATA
    
  Toxic, liquids, organic, n.o.s. (Potassium Dichromate)

- **Transport hazard class(es)**
  - ADG, IMDG
    
  - Class
    
  6.1 Toxic substances.
  
  - Label
    
  6.1

- IATA

  - Class
    
  6.1 Toxic substances.
  
  - Label
    
  6.1

- **Packing group**
  - ADG, IMDG, IATA III

- **Environmental hazards:**
  
  Product contains environmentally hazardous substances:
  
  - Potassium Dichromate

- **Marine pollutant:**
  
  Symbol (fish and tree)

- **Special marking (ADG):**
  
  Symbol (fish and tree)

- **Special precautions for user**
  
  Warning: Toxic substances.
  
  - Danger code (Kemler): 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:**

  - ADG
    
  - Limited quantities (LQ) 5L
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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

| · Transport category                      |          |
| · Tunnel restriction code                 | 2        |
| · IMDG                                    | E        |

| · 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 |          |
| · Australian Inventory of Chemical Substances                                              | All ingredients are listed. |
| · Standard for the Uniform Scheduling of Medicines and Poisons                             | 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  GHS07  GHS08
```

| · Signal word Danger                                                                      |
| · Hazard-determining components of labelling:                                            |
| Potassium Dichromate                                                                      |
| · Hazard statements                                                                      |
| May intensify fire; oxidiser.                                                            |
| Harmful if inhaled.                                                                      |
| Causes skin irritation.                                                                  |
| Causes serious 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 respiratory irritation.                                                         |
| Causes damage to organs through prolonged or repeated exposure.                         |

| · Precautionary statements Take any precaution to avoid mixing with combustibles.         |
| · Keep away from heat.                                                                   |
| · Do not breathe dust/fume/gas/mist/vapours/spray.                                       |
| [In case of inadequate ventilation] wear respiratory protection.                          |
Trade name: **POTASSIUM DICHROMATE 5% AQUEOUS**

Keep/Store away from clothing/combustible materials.
Wear protective gloves / eye protection / face protection.
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.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use for extinction: CO2, powder or water spray.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
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**
  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
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

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

· **Abbreviations and acronyms:**
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC: Volatile Organic Compounds (USA, EU)</td>
</tr>
<tr>
<td>LC50: Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LDS0: Lethal dose, 50 percent</td>
</tr>
<tr>
<td>PBT: Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>SVHC: Substances of Very High Concern</td>
</tr>
<tr>
<td>vPvB: very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>Ox. Liq. 2: Oxidising Liquids, Hazard Category 2</td>
</tr>
<tr>
<td>Acute Tox. 4: Acute toxicity, Hazard Category 4</td>
</tr>
<tr>
<td>Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1</td>
</tr>
<tr>
<td>Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1</td>
</tr>
<tr>
<td>Skin Sens. 1: Sensitisation - Skin, Hazard Category 1</td>
</tr>
<tr>
<td>Muta. 1A: Germ cell mutagenicity, Hazard Category 1A</td>
</tr>
<tr>
<td>Carc. 1A: Carcinogenicity, Hazard Category 1A</td>
</tr>
<tr>
<td>Repr. 1A: Reproductive toxicity, Hazard Category 1A</td>
</tr>
<tr>
<td>STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3</td>
</tr>
<tr>
<td>STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1</td>
</tr>
</tbody>
</table>

(Contd. of page 10)
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: sgkceck@aol.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
    Oxidizing Liquids – Category 2  H272  May intensify fire; oxidizer.
  - GHS06 Skull and crossbones
    Acute Toxicity (Inhalation) - Category 3  H331  Toxic 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-H362  May damage fertility or the unborn child. May cause harm to breast-fed children.
    Specific Target Organ Toxicity - Repeated Exposure - Category 1  H372  Causes damage to organs 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.
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

GHS07

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.
  Toxic 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 harm to breast-fed children.
  Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements
  Avoid contact during pregnancy and while nursing.
  Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  Do not breathe dust/fume/gas/mist/vapours/spray.
  [In case of inadequate ventilation] wear respiratory protection.
  Keep away from clothing and other combustible materials.
  Wear protective gloves/protective clothing/eye protection/face protection.
  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.
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 -specific treatment (see on this label).
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  Wash contaminated clothing before reuse.
  IF exposed or concerned: Get medical advice/attention.
  IF SKIN IRRITATION or rash occurs: Get medical advice/attention.
  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
  Get medical advice/attention if you feel unwell.
  In case of fire: Use for extinction: CO2, powder or water spray.

(Contd. on page 3)
Trade name: POTASSIUM DICROMATE 5% AQUEOUS

Take off contaminated clothing and wash it before reuse. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

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

· Hazard description:
· WHMIS-symbols:
  D1B - Toxic material causing immediate and serious toxic effects
  D2A - Very toxic material causing other toxic effects

Classification system:
NFPA ratings (scale 0 - 4)

Health = 2
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH Health = 2
FIRE Fire = 0
REACTIVITY 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 | 1-5% w/w |

SVHC

| 7778-50-9 | Potassium Dichromate |

4 First-aid measures

· Description of first aid measures
· General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: Immediately call a doctor.
Safety Data Sheet
acc. to OSHA HCS

Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- 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:
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - Special hazards arising from the substance or mixture: No further relevant information available.
  - Advice for firefighters
    - Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
  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).
  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:
    Protect from heat.
    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.
  - Protect from heat and direct sunlight.
- Specific end use(s): No further relevant information available.

(Contd. on page 5)
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:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Long-term value</th>
<th>Ceiling limit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9 Potassium Dichromate</td>
<td>0.025 mg/m³</td>
<td>0.1 mg/m³ as Cr</td>
</tr>
<tr>
<td></td>
<td>ACGIH A1, IARC 1</td>
<td></td>
</tr>
</tbody>
</table>

- 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 skin.
    - 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

(Contd. on page 6)
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: Undetermined.
  - Boiling point/Boiling range: 100 °C
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not flammable.
- Ignition temperature:
  - Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Vapor pressure at 20 °C: 23 hPa
  - Density at 20 °C: 1.0838 g/cm³
  - 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:
  - Organic solvents: 0.0 %
  - 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.
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- 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: Irritant to skin and mucous membranes.
      - on the eye: 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
      Irritant
      Carcinogenic.
      The product can cause inheritable damage.
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer)
      7778-50-9 Potassium Dichromate
      Class 1
    - NTP (National Toxicology Program)
      7778-50-9 Potassium Dichromate
      K
    - OSHA-Ca (Occupational Safety and 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.
      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
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

· 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, TDG, IMDG, IATA UN2810
· UN proper shipping name
  · DOT, IATA Toxic, liquids, organic, n.o.s. (Potassium Dichromate)
  · TDG 2810 Toxic, liquids, organic, n.o.s. (Potassium Dichromate), ENVIRONMENTALLY HAZARDOUS
  · IMDG TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
· Transport hazard class(es)
  · DOT
    · Class 6.1 Toxic substances
    · Label 6.1
  · TDG, IMDG
    · Class 6.1 Toxic substances
    · Label 6.1
· IATA
  · Class 6.1 Toxic substances
  · Label 6.1
### Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>Packing group</th>
<th>DOT, TDG, IMDG, IATA</th>
<th>III</th>
</tr>
</thead>
</table>

- **Environmental hazards:**
  - Product contains environmentally hazardous substances: Potassium Dichromate

- **Marine pollutant:**
  - Symbol (fish and tree)

- **Special marking (TDG):**
  - Symbol (fish and tree)

- **Special precautions for user**
  - Warning: Toxic substances

- **Danger code (Kemler):**
  - 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

  - **TDG**
    - 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, LIQUIDS, 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 ingredients are listed.

  - **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
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- **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 established by ACGIH)**
    - 7778-50-9 Potassium Dichromate A1
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - 7778-50-9 Potassium Dichromate

- **Canadian substance listings:**
  - **Canadian Domestic Substances List (DSL)**
    - All ingredients are 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

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

- **Hazard statements**
  - May intensify fire; oxidizer.
  - Toxic 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 harm to breast-fed children.
  - Causes damage to organs through prolonged or repeated exposure.

- **Precautionary statements**
  - Avoid contact during pregnancy and while nursing.
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - Do not breathe dust/fume/gas/mist/vapours/spray.
  - [In case of inadequate ventilation] wear respiratory protection.
  - Keep away from clothing and other combustible materials.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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 (see on this label). If experiencing respiratory symptoms: Call a POISON CENTER/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Wash contaminated clothing before reuse. IF exposed or concerned: Get medical advice/attention. IF skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell. In case of fire: Use for extinction: CO2, powder or water spray. Take off contaminated clothing and wash it before reuse. Store locked up. Store in a well-ventilated place. Keep container tightly closed. 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.

- Date of preparation / last revision 12/29/2015 / -
- Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  WHMIS: Workplace Hazardous Materials Information System (Canada)
  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
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety
  Health
  Oxidizing Liquids – Category 2: Oxidising Liquids, Hazard Category 2
  Acute Toxicity (Inhalation) - Category 3: Acute toxicity, Hazard Category 3
  Skin Corrosion - Category 1B: Skin corrosion/irritation, Hazard Category 1B
  Serious Eye Damage - Category 1: Serious eye damage/eye irritation, Hazard Category 1
  Respiratory Sensitizer - Category 1: Sensitisation - Respirat., Hazard Category 1
  Skin Sensitizer - Category 1: Sensitisation - Skin, Hazard Category 1
  Germ Cell Mutagenicity - Category 1B: Germ cell mutagenicity, Hazard Category 1B
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

Carcinogenicity - Category 1B: Carcinogenicity, Hazard Category 1B
Reproductive Toxicity - Category 1B: Reproductive toxicity, Hazard Category 1B
Specific Target Organ Toxicity - Repeated Exposure - Category 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
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: sgkck@aol.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

  GHS03 flame over circle
  Ox. Liq. 2 H272 May intensify fire; oxidiser.

  GHS08 health hazard
  Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  Muta. 1A H340 May cause genetic defects.
  Carc. 1A H350 May cause cancer.
  Repr. 1A H360FD May damage fertility. May damage the unborn child.
  STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

  GHS05 corrosion
  Eye Dam. 1 H318 Causes serious eye damage.

  GHS09 environment
  Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

  GHS07
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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  GHS07  GHS08  GHS09

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

SECTION 3: Composition/information on ingredients
- 3.2 Chemical characterisation: Mixtures
  - Description: Mixture of substances listed below with nonhazardous additions.
**Trade name:** POTASSIUM DICHROMATE 5% AQUEOUS

### SECTION 4: First aid measures

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

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
  - Suitable extinguishing agents:
    CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
  No further relevant information available.
- **5.3 Advice for firefighters**
  - Protective equipment: Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Not required.
- **6.2 Environmental precautions:**
  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).
  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.
**Safety data sheet**

according to 1907/2006/EC, Article 31

Printing date 29.12.2015  
Revision: 29.12.2015

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

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See Section 13 for disposal information.

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**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:**
  Protect from heat.
  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.
    Protect from heat and direct sunlight.

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

---

**SECTION 8: Exposure controls/personal protection**

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

- **8.1 Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace:**
    - 7778-50-9 Potassium Dichromate
      - WEL Long-term value: 0.05 mg/m³ as Cr; Carc, Sen, BMGV
  - **Ingredients with biological limit values:**
    - 7778-50-9 Potassium Dichromate
      - BMGV 10 µmol/mol creatinine
        Medium: urine
        Sampling time: post shift
        Parameter: chromium

- **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 skin.
      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.
42. 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/Melting range: Undetermined.
Boiling point/Boiling range: 100 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Self-igniting: Product is not self-igniting.

Danger of explosion: 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/cm³
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

- 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:
  - Organic solvents: 0.0 %
  - 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
    Harmful if inhaled.

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

- Primary irritant effect:
- Skin corrosion/irritation
  Causes skin irritation.
- 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.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity
  May cause genetic defects.
- Carcinogenicity
  May cause cancer.
### 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.
    - 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
- **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, liquids, organic, n.o.s. (Potassium Dichromate)
### 14.3 Transport hazard class(es)
- **ADR, IMDG**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Toxic substances.</td>
<td>6.1</td>
</tr>
</tbody>
</table>

### IATA

<table>
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<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Toxic substances.</td>
<td>6.1</td>
</tr>
</tbody>
</table>

### 14.4 Packing group
- **ADR, IMDG, IATA**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

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

### 14.6 Special precautions for user
- **Warning:** Toxic substances.
- **Danger code (Kemler):** 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:

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
</tr>
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<tbody>
<tr>
<td><strong>Limited quantities (LQ):</strong> 5L</td>
<td><strong>Limited quantities (LQ):</strong> 5L</td>
</tr>
<tr>
<td><strong>Code:</strong> E1</td>
<td><strong>Code:</strong> E1</td>
</tr>
<tr>
<td><strong>Maximum net quantity per inner packaging:</strong> 30 ml</td>
<td><strong>Maximum net quantity per inner packaging:</strong> 30 ml</td>
</tr>
<tr>
<td><strong>Maximum net quantity per outer packaging:</strong> 1000 ml</td>
<td><strong>Maximum net quantity per outer packaging:</strong> 1000 ml</td>
</tr>
<tr>
<td><strong>Transport category:</strong> 2</td>
<td><strong>Tunnel restriction code:</strong> E</td>
</tr>
</tbody>
</table>

### UN "Model Regulation":
- **UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (POTASSIUM DICROMATE), 6.1, III, ENVIRONMENTALLY HAZARDOUS**
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

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
  - 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.
  - H360/0D 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 européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
Trade name: POTASSIUM DICHROMATE 5% AQUEOUS

Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
Carc. 1A: Carcinogenicity, Hazard Category 1A
Carc. 1B: Carcinogenicity, Hazard Category 1B
Repr. 1A: Reproductive toxicity, Hazard Category 1A
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
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
- 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 Laboratoriumchemiën
- 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: sgkcek@aol.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.

- GHS08 gezondheidsgevaar
  Resp. Sens. 1  H334  Kan bij inademning allergie- of astmasymptomen of ademhalingsmoeilijkheden veroorzaken.
  Muta. 1A  H340  Kan genetische schade veroorzaken.
  Carc. 1A  H350  Kan kanker veroorzaken.
  Repr. 1A  H360FD  Kan de vruchtbaarheid schaden. Kan het ongebooren kind schaden.
  STOT RE 1  H372  Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.

- GHS05 corrosie
  Eye Dam. 1  H318  Veroorzaakt ernstig oogletsel.

(Vervolg op blz. 2)
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Bladzijde: 2/10

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(Vertvolg van blz. 1)

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

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

- Signaalwoord Gevaar

- Gevaaraanduidende componenten voor de etikettering:
kaliumdichromaat

- Gevarenaanduidingen

H272 Kan brand bevorderen; oxiderend.
H332 Schadelijk bij inademing.
H315 Veroorzaakt huidirritatie.
H318 Veroorzaakt ernstig oogletsel.
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.
H315 Veroorzaakt schade aan organen bij langdurige of herhaalde blootstelling.
H411 Gifzig voor in het water levende organismen, met langdurige gevolgen.

- Veiligheidsaanbevelingen

P221 Vermenging met brandbare stoffen absoluut vermijden.
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal
minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.
P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.
P321 Specifieke behandeling vereist (zie op dit etiket).
P405 Achter slot bewaren.
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/ internationale voorschriften.

2.3 Andere gevaren

- Resultaten van PBT- en zPzB-beoordeling

- PBT: Niet bruikbaar.
**Handelsnaam:** POTASSIUM DICHROMATE 5% AQUEOUS

- **zPzB:** Niet bruikbaar.

### RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met ongevaaelige bijmengingen.

<table>
<thead>
<tr>
<th>Gevaarlijke inhoudstoffen:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7778-50-9</td>
</tr>
<tr>
<td>EINECS: 231-906-6</td>
</tr>
<tr>
<td>Kaliumdichromaat</td>
</tr>
<tr>
<td>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</td>
</tr>
<tr>
<td>2,5-10%</td>
</tr>
</tbody>
</table>

- **SVHC**
  - 7778-50-9 kaliumdichromaat

- **Aanvullende gegevens:**
  De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

### RUBRIEK 4: Eerstehulpmaatregelen

- **4.1 Beschrijving van de eerstehulpmaatregelen**
  - **Algemene informatie:** Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle minstens 48 uur na een ongeval noodzakelijk.
  - **Na het inademen:**
    Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.
    Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
  - **Na huidcontact:** Ommiddelijk 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.
  - **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:**
    CO2, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
  - **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
    Geen verdere relevante informatie verkrijgbaar.
  - **5.3 Advies voor brandweerlieden**
    Speciale beschermende kleding: Ademhalingstoestel aantrekken.

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

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermd uitrusting en noodprocedures**
  Geen nodig.

- **6.2 Milieuvoorzorgsmaatregelen:**
  Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.
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Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.

6.3 Insluitings- en reinigingsmethoden en -materiaal:
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
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:
Beschermen tegen hitte.
Ademhalingsstoestellen 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 ondoorgrondbaar gesloten houden.
  Tegen hitte en directe zonnestralen beschermen.

7.3 Specifiek eindgebruik Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

8.1 Controleparameters

Bestanddelen met grenswaarden die m.b.t. de werkrui mte in acht genomen moeten worden:

<table>
<thead>
<tr>
<th>7778-50-9 kaliumdichromaat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korte termijn waarde: 0,05 mg/m³</td>
</tr>
<tr>
<td>Lange termijn waarde: 0,025 mg/m³</td>
</tr>
<tr>
<td>als Cr</td>
</tr>
</tbody>
</table>

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 werkstĳd handen wassen.
Beschermende kleding afzonderlijk bewaren.
Aanraking met de huid 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.
Handelsnaam: POTASSIUM DICHROMATE 5% AQUEOUS

- **Handbescherming:**
  - Veiligheidshandschoenen


- **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

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**RUBRIEK 9: Fysische en chemische eigenschappen**

- **9.1 Informatie over fysische en chemische basiseigenschappen**
  - Algemene gegevens
  - Voorkomen:
    - Vorm: Vloeistof
    - Kleur: Oranje
    - Reuk: Reukloos
    - Geurdrempelwaarde: Niet bepaald.
  - pH-waarde bij 20 °C: 4
  - Toestandsverandering
    - Smeltpunt/smeltbereik: Niet bepaald.
    - Kookpunt/kookpuntbereik: 100 °C
  - Vlampunt: Niet bruikbaar.
  -Ontvlambaarheid (vast, gasvormig): Niet bruikbaar.
  - Ontstekingsstemperatuur:
    - Ontbindingstemperatuur: Niet bepaald.
    - Zelfontsteking: Het produkt ontbrandt niet uit zichzelf.
  - Ontploffingsgevaar: Het produkt is niet ontploffingsgevaarlijk.
  - Ontploffingsgrenzen:
    - Onderste: Niet bepaald.
    - Bovenste: Niet bepaald.
  - Dampspanning bij 20 °C: 23 hPa
  - Dichtheid bij 20 °C: 1.0838 g/cm³
**Handelsnaam: POTASSIUM DICHROMATE 5% AQUEOUS**

- **Relatieve dichtheid**: Niet bepaald.
- **Dampdichtheid**: Niet bepaald.
- **Verdampingsnauwkeurigheid**: 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**
  - Organisch oplosmiddel: 0.0 %
  - Water: 95.0 %
  - VOC (EG): 0.00 %

- **Gehalte aan vaste bestanddelen**: 5.0 %

- **9.2 Overige informatie**: Geen verdere relevante informatie verkrijgbaar.

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**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.

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**RUBRIEK 11: Toxicologische informatie**

- **11.1 Informatie over toxicologische effecten**
  - **Acute toxiciteit**: Schadelijk bij inademen.

- **Indelingsrelevantie LD/LC50-waarden**:

<table>
<thead>
<tr>
<th>Stof/Formulering</th>
<th>LD(LC)50</th>
<th>Zentrale Dosis/Concentraat</th>
<th>Animale soort</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9 kaliumdichromaat</td>
<td>Oraal LD50</td>
<td>190 mg/kg (mouse)</td>
<td></td>
</tr>
</tbody>
</table>

- **Primair aandoening**
  - **Huidcorrosie/-irritatie**: Veroorzaakt huidirritatie.
  - **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.

- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
  - **Mutageniteit in geslachtscellen**: Kan genetische schade veroorzaken.
  - **Kankerverwekkendheid**: Kan kanker veroorzaken.
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- 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
  Veroorzaakt schade aan organen 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 Mobilité in de bodem
  Geen verdere relevante informatie verkrijgbaar.
- Ecoxische effecten:
  Opmerking: Giftig voor vissen.
- Verdere ecologische informatie:
  - Algemene informatie:
    Waterbezwaarlijkheid (NL) 2: Kan erfelijke genetische schade veroorzaken.
    Gevaar voor water klasse 3 (D) (Zelfclassificatie): gevaar voor water groot
    Niet lozen in grondwater, oppervlaktewater of riolering, ook niet in kleine hoeveelheden.
    Gevaar voor drinkwater zelfs bij het uitlopen van zeer geringe hoeveelheden in de ondergrond.
    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 tezamen met huisvuil gestort worden of in de riolering terechtkomen.
- Niet gereinigde verpakkingen:
- Aanbeveling: Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- 14.1 VN-nummer
  - ADR, IMDG, IATA: UN2810
- 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, liquids, organic, n.o.s. (Potassium Dichromate)
**Handelsnaam: POTASSIUM DICROMATE 5% AQUEOUS**

### 14.3 Transportgevarenklasse(n)
- **ADR, IMDG**
  - klasse: 6.1 Giftige stoffen
  - Etiket: 6.1

### 14.4 Verpakkingsgroep:
- **ADR, IMDG, IATA**
  - Class: 6.1 Giftige stoffen
  - Label: 6.1
  - Verpakking: III

### 14.5 Milieugevaren:
- **Marine pollutant:**
- **Bijzondere kenmerking (ADR):**
  - Kemler-getal: 60
  - EMS-nummer: F-A,S-A
  - Stowage Category: A
  - Stowage Code: SW2 Clear of living quarters.

### 14.6 Bijzondere voorzorgen voor de gebruiker
- **Waarschuwing:** Giftige stoffen
- **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
- **Produkt bevat milieugevaarlijke stoffen: kaliumdichromaat**
- **Symbool (vis en boom):**
- **Bijzondere kenmerking (ADR):**
  - Symbool (vis en boom):
- **Waarschuwing:** Giftige stoffen
  - Kemler-getal:
  - EMS-nummer:
  - Stowage Category:
  - Stowage Code:

### Transport/verdere gegevens:
- **ADR**
  - Beperkte hoeveelheden (LQ): 5L
  - Uitgezonderde hoeveelheden (EQ): Code: E1
  - Maximum net quantity per binnenverpakking: 30 ml
  - Maximum net quantity per buitenverpakking: 1000 ml
- **Vervoerscategorie**
- **Tunnelbeperkingscode**
- **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
- **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
  - SZW-lijst van mutagene stoffen
    7778-50-9 kaliumdichromaat
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid
    7778-50-9 kaliumdichromaat
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling
    7778-50-9 kaliumdichromaat
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding
    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
  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
- 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) 2: Saneringsinspanning A
  - Aanvullende voorschriften, beperkingen en verbodsverordeningen

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

(Vervolg van blz. 9)

**H410** Zeer giftig voor in het water levende organismen, met langdurige gevolgen.

### Afkortingen en acroniemen:
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
- Ox. Sol. 2: Oxidising Solids, Hazard Category 2
- Acute Tox. 3: Acute toxicity, Hazard Category 3
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
- Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
- Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
- Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
- Carc. 1A: Carcinogenicity, Hazard Category 1A
- Carc. 1B: Carcinogenicity, Hazard Category 1B
- Rep. 1A: Reproductive toxicity, Hazard Category 1A
- Rep. 1B: Reproductive toxicity, Hazard Category 1B
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

**NL**
### 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

1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées

Pas d'autres informations importantes disponibles.

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: sgkck@aol.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.

  - GHS08 danger pour la santé: Resp. Sens. 1  H334  Peut provoquer des symptômes allergiques ou d'asthme ou des difficultés respiratoires par inhalation.
  - Mutag. 1A  H340  Peut induire des anomalies génétiques.
  - Carc. 1A  H350  Peut provoquer le cancer.
  - Repr. 1A  H360FD  Peut nuire à la fertilité. Peut nuire au fœtus.
  - STOT RE 1  H372  Risque avéré d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée.

  - GHS05 corrosion
    - Eye Dam. 1  H318  Provoque des lésions oculaires graves.

  - GHS09 environnement
    - Aquatic Chronic 2  H411  Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

(suite page 2)
Nom du produit: POTASSIUM DICHROMATE 5% AQUEOUS

GHS07

Acute Tox. 4  H332  Nocif par inhalation.
Skin Irrit. 2  H315  Provoque une irritation cutanée.
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

- Mention d'avertissement Danger
- Composants dangereux déterminants pour l'étiquetage:
  dichromate de potassium
- Mentions de danger
  H272  Peut aggraver un incendie; comburant.
  H332  Nocif par inhalation.
  H315  Provoque une irritation cutanée.
  H318  Provoque des lésions oculaires graves.
  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.
  H355  Peut irriter les voies respiratoires.
  H372  Risque avéré d'effets graves pour les organes 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
  P221  Prendre toutes précautions pour éviter de mélanger avec des matières combustibles.
  P305+P351+P338  EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
  P310  Appeler immédiatement un CENTRE ANTIPOISON/un médecin.
  P321  Traitement spécifique (voir sur cette étiquette).
  P405  Garder sous clef.
  P501  Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

- 2.3 Autres dangers
- Résultats des évaluations PBT et vPvB
  - PBT: Non applicable.
  - vPvB: Non applicable.
RUBRIQUE 3: Composition/informations sur les composants

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

<table>
<thead>
<tr>
<th>CAS: 7778-50-9</th>
<th>dichromate de potassium</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-906-6</td>
<td></td>
</tr>
</tbody>
</table>

- SVHC

| 7778-50-9 | dichromate de potassium |

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

RUBRIQUE 4: Premiers secours

- 4.1 Description des premiers secours
- Remarques générales:
  Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
- Après inhalation:
  Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.
  En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- Après contact avec la peau:
  Laver immédiatement à l'eau et au savon et bien rincer.
- Après contact avec les yeux:
  Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières et consulter un médecin.
- 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.
- 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:
  CO2, poudre d'extinction ou eau pulvérisée. Combattre les foyers importants avec de l'eau pulvérisée ou de la mousse résistant à l'alcool.
- 5.2 Dangers particuliers résultant de la substance ou du mélange
  Pas d'autres informations importantes disponibles.
- 5.3 Conseils aux pompiers
  - Equipement spécial de sécurité: Porter un appareil de protection respiratoire.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- 6.1 Précautions individuelles, équipement de protection et procédures d'urgence Pas nécessaire.
- 6.2 Précautions pour la protection de l'environnement:
  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.
Nom du produit: POTASSIUM DICHROMATE 5% AQUEOUS

- 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).
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.
Éviter la formation d'aérosols.

Préventions des incendies et des explosions:
Tenir à l'abri de la chaleur.
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.
Protéger de la forte chaleur et du rayonnement direct du soleil.

- 7.3 Utilisation(s) finale(s) particulière(s)
Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

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

- 8.1 Paramètres de contrôle

- Composants présentant des valeurs-seuil à surveiller par poste de travail:
<table>
<thead>
<tr>
<th>7778-50-9 dichromate de potassium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valeur momentanée: 0,005 mg/m³</td>
</tr>
<tr>
<td>Valeur à long terme: 0,001 mg/m³</td>
</tr>
<tr>
<td>en Cr; C1, C2 ou C3</td>
</tr>
</tbody>
</table>

- 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.
Conserver à part les vêtements de protection.
Éviter tout contact avec la peau.
Éviter tout contact avec les yeux et avec la peau.
La fiche de données de sécurité selon 1907/2006/CE, Article 31.

Date d'impression : 29.12.2015
Révision : 29.12.2015

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- **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.
  A 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.

- **Matériaux 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

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**RUBRIQUE 9: Propriétés physiques et chimiques**

- **9.1 Informations sur les propriétés physiques et chimiques essentielles**
  **Indications générales**

  - **Aspect:**
    - Liquide
  - **Couleur:**
    - Orange
  - **Odeur:**
    - Inodore
  - **Seuil olfactif:**
    - Non déterminé.
  - **Valeur du pH à 20 °C:**
    - 4

  - **Changement d'état**
    - Point de fusion:
      - Non déterminé.
    - Point d'ébullition:
      - 100 °C

  - **Point d'éclair**
    - Non applicable.

  - **Inflammabilité (solide, gazeux):**
    - Non applicable.

  - **Température d'inflammation:***
    - Non déterminé.

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

  - **Auto-inflammation:**
    - Le produit ne s'enflamme pas spontanément.

  - **Danger d'explosion:**
    - Le produit n'est pas explosif.

  - **Limites d'explosion:**
    - Inférieure:
      - Non déterminé.
**Fiche de données de sécurité**  
**selon 1907/2006/CE, Article 31**

**Nom du produit:** POTASSIUM DICHROMATE 5% AQUEOUS

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**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.

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**RUBRIQUE 11: Informations toxicologiques**

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

- **Valeurs LD/LC50 déterminantes pour la classification:**
  - 7778-50-9 dichromate de potassium
    - Oral LD50 190 mg/kg (souris)

- **Effet primaire d’irritation:**
  - Corrosion cutanée/irritation cutanée
    - Provoque une irritation cutanée.
  - Lésions oculaires graves/irritation oculaire
    - Provoque des lésions oculaires graves.
  - 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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(suite de la page 7)
Fiche de données de sécurité
selon 1907/2006/CE, Article 31

Date d'impression : 29.12.2015
Révision: 29.12.2015

Nom du produit: POTASSIUM DICHROMATE 5% AQUEOUS

· Effets CMR (cancérogène, mutagène et toxique pour la reproduction)
· Mutagénicité 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 avéré d'effets graves pour les organes 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.
  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
### Fiche de données de sécurité

**Nom du produit:** POTASSIUM DICHROMATE 5% AQUEOUS

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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, liquides, 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**
  - Clas: 6.1 Matières toxiques.
  - Label: 6.1

#### 14.4 Groupe d'emballage

- **ADR, IMDG, IATA**
  III

#### 14.5 Dangers pour l'environnement:

- **Marine Pollutant:**
  Le produit contient matières dangereuses pour l'environnement : dichromate de potassium
- **Marquage spécial (ADR):**
  Signe conventionnel (poisson et arbre)

#### 14.6 Précautions particulières à prendre par l'utilisateur

- **Indice Kemler:**
  60
- **No EMS:**
  F-A,S-A
- **Stowage Category**
  A
- **Stowage Code**
  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):** 5L
  - **Quantités exceptées (EQ):** 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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(suite page 9)
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
  - 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
- Prescriptions nationales:
  - Indications sur les restrictions de travail:
    Le personnel ne doit pas être exposé aux substances dangereuses cancérigènes 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
    7778-50-9 dichromate de potassium
- 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 des brûlures de la peau et des lésions oculaires graves.
  - 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.
Nom du produit: POTASSIUM DICHROMATE 5% AQUEOUS

- **Acronymes et abréviations:**
  
  ADR: Accord européen sur le transport des marchandises dangereuses par Route
  IMDG: International Maritime Code for Dangerous Goods
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  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Acute Tox. 2: Acute toxicity, Hazard Category 2
  Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
  Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
  Cane. 1A: Carcinogenicity, Hazard Category 1A
  Cane. 1B: Carcinogenicity, Hazard Category 1B
  Repr. 1A: Reproductive toxicity, Hazard Category 1A
  Repr. 1B: Reproductive toxicity, Hazard Category 1B
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
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  Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

1.1 Produktidentifikator

- Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS
- Artikelnummer: 20103-4

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

Keine weiteren relevanten Informationen verfügbar.

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: sgkcck@aol.com
  www.emsdiasum.com

Science Services GmbH
Unterhachinger Str. 75
81737 München Germany
Tel: +49(0)89 18 93 668-0
safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240
Toxikologische Abteilung der II. Medizinischen Klinik
rechts der Isar, Munchen. - www.toxinfo.org

- Auskunftgebender Bereich: Product safety department
- 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.

  GHS08 Gesundheitsgefahr
  Resp. Sens. 1  H334  Kann bei Einatmen Allergie, asthmatische Symptome oder Atembeschwerden verursachen.
  Muta. 1A  H340  Kann genetische Defekte verursachen.
  Carc. 1A  H350  Kann Krebs erzeugen.
  Repr. 1A  H360FD  Kann die Fruchtbarkeit beeinträchtigen, kann das Kind im Mutterleib schädigen.
  STOT RE 1  H372  Schädigt die Organe bei längerer oder wiederholter Exposition.

(Fortsetzung auf Seite 2)
Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS

GHS05 Ätzwirkung

Eye Dam. 1 H318 Verursacht schwere Augenschäden.

GHS09 Umwelt

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

GHS07

Acute Tox. 4 H332 Gesundheitsschädlich bei Einatmen.
Skin Irrit. 2 H315 Verursacht Hautreizungen.
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 GHS07 GHS08 GHS09

Signalwort Gefahr

Gefahrbestimmende Komponenten zu Etikettierung:
Kaliumdichromat

Gefahrenhinweise

H272 Kann Brand verstärken; Oxidationsmittel.
H332 Gesundheitsschädlich bei Einatmen.
H315 Verursacht Hautreizungen.
H318 Verursacht schwere Augenschäden.
H334 Kann bei Einatmen Allergie, asthmatiche 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.
H372 Schädigt die Organe bei längerer oder wiederholter Exposition.
H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

Sicherheitshinweise

P221 Mischen mit brennbaren Stoffen unbedingt verhindern.
Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.
P310 Sofort GIFTINFORMATIONZENTRUM/Ärzt anrufen.
P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
P405 Unter Verschluss aufbewahren.
Handelsname: POTASSIUM DICROMATE 5% AQUEOUS


· 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 |
  | 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 |
  | 2,5-10% |
· SVHC
  | 7778-50-9 | Kaliumdichromat |
· Zusätzliche Hinweise: Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen

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

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· 5.1 Löschmittel
· Geeignete Löschmittel:
· 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren
  Keine weiteren relevanten Informationen verfügbar.
**Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS**

- 5.3 Hinweise für die Brandbekämpfung
- Besondere Schutzausrüstung: Atemschutzgerät anlegen.

**ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung**

- 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren
  Nicht erforderlich.
- 6.2 Umweltschutzmaßnahmen:
  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.
  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:
  Vor Hitze schützen.
  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.
  Vor Hitze und direkter Sonnenbestrahlung schützen.
  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**

- Zusätzliche Hinweise zur Gestaltung technischer Anlagen: Keine weiteren Angaben, siehe Abschnitt 7.
- 8.1 Zu überwachende Parameter
  Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:
  7778-50-9 Kaliumdichromat
  MAK einatembare Fraktion; vgl.Abschn.XII
- Zusätzliche Hinweise: Als Grundlage dienten die bei der Erstellung gültigen Listen.
Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS

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 Arbeitende Hände waschen.
  Getrennte Aufbewahrung der Schutzkleidung.
  Berührung mit der Haut 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:
  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 Handschuhmaterialen nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.
· Durchdringungszeit des Handschuhmaterials
  Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
· Augenschutz:

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
  Geruchsschwelle: Nicht bestimmt.
· pH-Wert bei 20 °C: 4
· Zustandsänderung
  Schmelzpunkt/Schmelzbereich: Nicht bestimmt.
  Siedepunkt/Siedebereich: 100 °C
· Flammpunkt: Nicht anwendbar.
### Entzündlichkeit (fest, gasförmig):
Nicht anwendbar.

### Zündtemperatur:

### Zersetzungstemperatur:
Nicht bestimmt.

### Selbstentzündlichkeit:
Das Produkt ist nicht selbstentzündlich.

### Explosionsgefahr:
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/cm³

### 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:
- **Organische Lösemittel:** 0.0 %
- **Wasser:** 95.0 %
- **VOC (EU):** 0.00 %

### Festkörpergehalt:
5.0 %

### 9.2 Sonstige Angaben
Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 11: Stabilität und Reaktivität

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

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**
  Gesundheitsschädlich bei Einatmen.
Handelsname: POTASSIUM DICROMATE 5% AQUEOUS

- Einstufungsrelevante LD/LC50-Werte:
  - 7778-50-9 Kaliumdichromat
    - Oral LD50 190 mg/kg (mouse)

- Primäre Reizwirkung:
  - Ätz-/Reizwirkung auf die Haut
    Verursacht Hautreizungen.
  - Schwere Augenschädigung/-reizung
    Verursacht schwere Augenschäden.
  - Sensibilisierung der Atemwege/Haut
    Kann bei Einatmen Allergie, asthamaartige Symptome oder Atembeschwerden verursachen.
    Kann allergische Hautreaktionen verursachen.
  - 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
    Schädigt die Organe 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.
  - 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.
- 12.6 Andere schädliche Wirkungen
  - Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

- 13.1 Verfahren der Abfallbehandlung
**Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS**

- Ungereinigte Verpackungen:
  - **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

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### ABSCHNITT 14: Angaben zum Transport

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

- **14.2 Ordnungsgemäße UN-Versandbezeichnung**
  - **ADR**
    - 2810 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N.A.G. (Kaliumdichromat), UMWELTGEFÄHRDEND
  - **IMDG**
    - TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
  - **IATA**
    - Toxic, liquids, organic, n.o.s. (Potassium Dichromate)

- **14.3 Transportgefahrenklassen**
  - **ADR, IMDG**
    - Klasse 6.1 Giftige Stoffe
    - Gefahrzettel 6.1
  - **IATA**
    - Class 6.1 Giftige Stoffe
    - Label 6.1

- **14.4 Verpackungsgruppe**
  - ADR, IMDG, IATA III

- **14.5 Umweltgefahren:**
  - Das Produkt enthält umweltgefährdende Stoffe: Kaliumdichromat
  - Marine pollutant: Symbol (Fisch und Baum)
  - Besondere Kennzeichnung (ADR): Symbol (Fisch und Baum)

- **14.6 Besondere Vorsichtsmaßnahmen für den Verwender**
  - **Kemler-Zahl:** 60
  - **EMS-Nummer:** F-A,S-A
  - **Stowage Category:** A
  - **Stowage Code:** SW2 Clear of living quarters.

- **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code Nicht anwendbar.**
Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS

- **Transport/weitere Angaben:**
  - ADR
  - Begrenzte Menge (LQ) 5L
  - Freigestellte Mengen (EQ) Code: E1
  - Höchste Nettomenge je Innenverpackung: 30 ml
  - Höchste Nettomenge je Außenverpackung: 1000 ml
  - Beförderungskategorie 2
  - Tunnelbeschränkungscode 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 GIFTIGER ORGANISCHER FLÜSSIGER STOFF, N. A. G. (KALIUM DICHROMAT), 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 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
  - 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
    - Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57
      - 7778-50-9 Kaliumdichromat

### 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.
Handelsname: POTASSIUM DICHROMATE 5% AQUEOUS

(Fortsetzung von Seite 9)

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
H317 Kann allergische Hautreaktionen verursachen.
H330 Lebensgefahr bei Einatmen.
H334 Kann bei Einatmen Allergie, asthamaartige 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 européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Mut. 1A: Germ cell mutagenicity, Hazard Category 1A
Mut. 1B: Germ cell mutagenicity, Hazard Category 1B
Carc. 1A: Carcinogenicity, Hazard Category 1A
Carc. 1B: Carcinogenicity, Hazard Category 1B
Repr. 1A: Reproductive toxicity, Hazard Category 1A
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
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
- 1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati
  Non sono disponibili altre informazioni.
- 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: sgkck@aol.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.

  GHS08 pericolo per la salute
  Resp. Sens. 1 H334 Può provocare sintomi allergici o asmatici o difficoltà respiratorie se inalato.
  Muta. 1A H340 Può provocare alterazioni genetiche.
  Carc. 1A H350 Può provocare il cancro.
  Repr. 1A H360FD Può nuocere alla fertilità. Può nuocere al feto.
  STOT RE 1 H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.

  GHS05 corrosione
  Eye Dam. 1 H318 Provoca gravi lesioni oculari.

(continua a pagina 2)
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 29.12.2015
Revisione: 29.12.2015

Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

GHS09 ambiente
Aquatic Chronic 2 H411 Tossico per gli organismi acquatici con effetti di lunga durata.

GHS7
Acute Tox. 4 H332 Nocivo se inalato.
Skin Irrit. 2 H315 Provoca irritazione cutanea.
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 GHS07 GHS08 GHS09

· Avvertenza Pericolo
· Componenti pericolosi che ne determinano l’etichettatura:
dicromato di potassio
· Indicazioni di pericolo
H272 Può aggravare un incendio; comburente.
H332 Nocivo se inalato.
H315 Provoca irritazione cutanea.
H318 Provoca 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.
H372 Provoca danni agli organi in caso di esposizione prolungata o ripetuta.
H411 Tossico per gli organismi acquatici con effetti di lunga durata.
· Consigli di prudenza
P221 Prendere ogni precauzione per evitare di miscelare con sostanze combustibili.
P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti.
Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.
P310 Contattare immediatamente un CENTRO ANTIVELENI/un medico.
P321 Trattamento specifico (vedere su questa etichetta).
P405 Conservare sotto chiave.
P501 Smalire 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.
Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

- vPvB: Non applicabile.

SEZIONE 3: Composizione/informazioni sugli ingredienti

- 3.2 Caratteristiche chimiche: Miscele
- Descrizione: Miscela delle seguenti sostanze con additivi non pericolosi.

Sostanze pericolose:

<table>
<thead>
<tr>
<th>CAS: 7778-50-9</th>
<th>dicromato di potassio</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 231-906-6</td>
<td>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</td>
</tr>
</tbody>
</table>

SVHC

7778-50-9 dicromato di potassio

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

SEZIONE 4: Misure di primo soccorso

- 4.1 Descrizione delle misure di primo soccorso
- Indicazioni generali: I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all’incidente.
- Inalazione:
  Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.
  Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
- Contatto con la pelle:
  Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- 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.
- 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:
  CO2, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all’alcool.
- 5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela Non sono disponibili altre informazioni.
- 5.3 Raccomandazioni per gli addetti all’estinzione degli incendi
- Mezzi protettivi specifici: Indossare il respiratore.

SEZIONE 6: Misure in caso di rilascio accidentale

- 6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza Non necessario.
- 6.2 Precauzioni ambientali:
  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.

(continua a pagina 4)
Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

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). 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:
Proteggere dal calore.
Tener pronto il respiratore.

7.2 Condizioni per lo stoccaggio sicuro, comprese e eventuali incompatibilità

Stoccaggio:

- Requisiti dei magazzini e dei recipienti: Non sono richiesti requisiti particolari.
- Indicazioni sullo stoccaggio misto: Non necessario.

Ulteriori indicazioni relative alle condizioni di immagazzinamento:
Mantenere i recipienti ermeticamente chiusi.
Proteggere dal calore e dai raggi diretti del sole.

7.3 Usi finali particolari Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

8.1 Parametri di controllo

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.

Componenti con valori limite biologici:
7778-50-9 dicromato di potassio

IBE: 25 µg/l
Campioni: urine
Momento del prelievo: a fine turno a fine settimana lavorativa
Indicatore biologico: cromo totale

10 µg/l
Campioni: urine
Momento del prelievo: aumento d.t.
Indicatore biologico: cromo totale

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.

(continua a pagina 5)
Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell’intervallo o a lavoro terminato.
Custodire separatamente l’equipaggiamento protettivo.
Evitare il contatto con la pelle.
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

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
   Temperatura di fusione/ambito di fusione: Non definito.
   Temperatura di ebollizione/ambito di ebollizione: 100 °C
· Punto di infiammabilità: Non applicabile.
· Infiammabilità (solido, gassoso): Non applicabile.
· Temperatura di accensione:
   Temperatura di decomposizione: Non definito.
### Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

| · Autoaccensione: | Prodotto non autoinflammabile. |
| · Pericolo di esplosione: | 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 del vapore | Non definito. |
| · Velocità di evaporazione | Non definito. |
| · Solubilità in/Miscibilità con acqua: | Poco e/o non miscibile. |
| · Coefficiente di distribuzione (n-Octanol/acqua): | Non definito. |
| · Viscosità: |  |
|   Dinamica: | Non definito. |
|   Cinemica: | Non definito. |
| · Tenore del solvente: |  |
|   Solventi organici: | 0.0 % |
|   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. |
| · 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 | Nocivo 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 irritazione cutanea. |
Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

(SEgue da pagina 6)

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

SEZIONE 13: Considerazioni sullo smaltimento

13.1 Metodi di trattamento dei rifiuti
- Consigli: Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.

- Imballaggi non puliti:
  - Consigli: Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

14.1 Numero ONU
- ADR, IMDG, IATA UN2810

(continua a pagina 8)
### Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>· 14.2 Nome di spedizione dell'ONU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADR</strong></td>
</tr>
<tr>
<td><strong>IMDG</strong></td>
</tr>
<tr>
<td><strong>IATA</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· 14.3 Classi di pericolo connesso al trasporto</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADR, IMDG</strong></td>
</tr>
</tbody>
</table>

| · Classe | 6.1 Materie tossiche |
|· Etichetta | 6.1 |
| **IATA** | |

| · Class | 6.1 Materie tossiche |
|· Label | 6.1 |

<table>
<thead>
<tr>
<th>· 14.4 Gruppo di imballaggio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
</tr>
</tbody>
</table>

| · 14.5 Pericoli per l'ambiente: | Il prodotto contiene materie pericolose per l'ambiente: dicromato di potassio |
|· Marine pollutant: | Simbolo (pesce e albero) |
|· Marcatura speciali (ADR): | Simbolo (pesce e albero) |

<table>
<thead>
<tr>
<th>· 14.6 Precauzioni speciali per gli utilizzatori</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nummer Kemler:</strong></td>
</tr>
<tr>
<td><strong>Numero EMS:</strong></td>
</tr>
<tr>
<td><strong>Stowage Category</strong></td>
</tr>
<tr>
<td><strong>Stowage Code</strong></td>
</tr>
</tbody>
</table>

| · 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC | Non applicabile. |

<table>
<thead>
<tr>
<th>· Trasporto/ulteriori indicazioni:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADR</strong></td>
</tr>
<tr>
<td>· Quantità limitate (LQ)</td>
</tr>
<tr>
<td>· Quantità esenti (EQ)</td>
</tr>
<tr>
<td>Quantità massima netta per imballaggio interno: 30 ml</td>
</tr>
<tr>
<td>Quantità massima netta per imballaggio esterno: 1000 ml</td>
</tr>
</tbody>
</table>

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

(continua a pagina 9)
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

- 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
  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

- 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 lesioni cutanee e gravi lesioni oculari.
  H317 Può provocare una reazione allergica cutanea.
  H330 Letale 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 européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
Scheda di dati di sicurezza
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Denominazione commerciale: POTASSIUM DICHROMATE 5% AQUEOUS

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
vPoB: very Persistent and very Bioaccumulative
Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
Carc. 1A: Carcinogenicity, Hazard Category 1A
Carc. 1B: Carcinogenicity, Hazard Category 1B
Repr. 1A: Reproductive toxicity, Hazard Category 1A
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
1 화학제품과 회사에 관한 정보

- 제품 식별자
  - 제품명: POTASSIUM DICROMATE 5% AQUEOUS
  - 상품번호: 20103-4
- 화학물질이 빠르게 화학물질이 빠르게 화학물질이 빠르게 화학물질이 빠르게
  - 제공되는 화학물질과 관련된 화학물질 관련 사항, 추가적인 정보가 존재하지 않습니다.
  - 안전데이터표(Safety Data Sheet)에 공급업체 관련 상세 정보
    - 제조자/수입자/유통업자: Electron Microscopy Sciences
      1560 Industry Road
      USA-Hatfield, PA 19440
      Tel: 215-412-8400 Fax: 215-412-8450
      email: sgkck@aol.com
      www.emsdiasum.com
    - Samchang Commercial Co., Ltd.
      Yeo Eui Do
      PO Box 1110
      Seoul, Korea
      Tel: 82 2 703 3040
      Fax: 82 2 717 3298
- 화학물질의 안전성
  - 추가적인 정보 획득 가능: Product safety department
  - 비상연락 전화번호: ChemTrec 1-800-424-9300 Contract CCN7661
    1-703-527-3887

2 유해성, 위험성

- 순물질 또는 혼합물의 분류
  - 회오리 화염
    - 산화성 액체 구분2 H272 화재를 강렬하게 함;산화제
  - 통상에 위험
    - 호흡기과민성 구분1 H334 홍시기 알레르기 반응, 천식 또는 호흡곤란을 일으킬 수 있음
    - 생식세포 변이성의 구분1A H340 유전손해의 임상적 결과를 일으킬 수 있음
    - 발암성 구분2A H350 암을 일으킬 수 있음
    - 뇌적강기 반복 노출 구분1 H360 적게 또는 반복 노출 되면 신체 중에 손상을 일으킴
  - 부식
    - 심한 눈 손상/자극성 구분1 H318 눈에 심한 손상을 일으킴
  - 환경
    - 수생환경 유해성/만성 구분2 H411 장기적인 영향에 의해 수생생물에게 유독함

(2) 총계8주(5)
제품명: POTASSIUM DICHROMATE 5% AQUEOUS

신호어 위험

상표상어영향 및 위험성

GHS03  GHS05  GHS07  GHS08  GHS09

신호어 위험

상표상어영향 및 위험성

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

รหัส

• 글로벌 표기 요소
  • GHS 라벨 요소
    본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
    • 그림문자

• 신호어 위험

• 상표상어영향 및 위험성

• 유해 위험 문구
  화재를 강화하게 함: 산화제
  흡입하면 유해함
  피부에 자극을 일으킴
  눈에 심한 손상을 일으킴
  흡입시 알레르기성 반응, 천식 또는 호흡 곤란을 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
  호흡기계 자극을 일으킬 수 있음
  장기간 또는 반복노출하여 신체 중에 손상을 일으킴
  장기적인 영향에 의해 수생생물에게 유독함

• 예방조치 문구
  가연성 물질과 (와) 혼합되지 않도록 조치하시오.
  눈에 묻으면 몇 분간 물로 세척하십시오.
  참조: 진단물질센터/병원 연락 필요.

• 기타 유해성
  • PBT (전투성, 생물학적 작용, 독성 물질) 및 vPvB (고 전투성, 고 생물학적 작용) 평가 결과
  • PBT (전투성, 생물학적 작용, 독성 물질): 해당사항 없음.
  • vPvB (고 전투성, 고 생물학적 작용): 해당사항 없음.

3 구성성분의 명칭 및 함량

• 화학적 특성: 혼합물
• 설명: 무해한 혼합물이 함유된 아래에 열거된 물질로 만들 어진 혼합물.
급성

응급조치요령

응급조치요령 내용
일반적 정보:
중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48시간 동안 응급처치를 받아야 한다.

응급처치:
신선한 공기를 섞고 나서 반드시 의료진의 도움을 구한다.
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
피부에 접촉했을 때: 즉시 물과 비누로 씻어내고, 의사와 상담한다.

약을 흡입했을 때: 즉시 의사의 도움을 구한다.

기타 의사의 주의사항:
가장 중요한 급성혈관 중추 및 영양산중을 가진 경우에는 추가적인 정보가 존재하지 않습니다.

증강된 의료처치 및 특별조치가 필요할 시 시사하는 정후 추가적인 정보가 존재하지 않습니다.

폭발.화재시 대처방

소화제
적절한 소화제:
이산화황소, 진화용석 회가루 또는 물 방사를 사용하고, 다른 화재는 물을 분사 하거나 알코올이 함유된 거품으로 끊는다.
본 화학물질이나 화학물질에서 발생하는 특별재해 추가적인 정보가 존재하지 않습니다.

폭발물에 대한 전문사고
화재 진압 시 착용할 보호구 및 예방조치: 화학보호장비설치.

누출 사고 시 대처방

개인용 예방조치, 보호장비 및 응급처치 절차 필요없음.

화학 관련 예방조치:
화학이나 수도로 유입되었을 경우 해당관청에 보고한다.
화학물질/해수면위의물/지하수로 도달하지 않게 한다.

일반 및 정화 방법과 소재:
액체 가존합 물질(모래, 규조토, 산성결합 물, 일반 결합 물, 톱밥)에 흡입되도록 한다.
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
중분한 환기가 되도록 한다.

타 석션 참조
안전관리에 대한 정보는 제7장을 참고하시오.
개인 보호 장비에 대한 정보는 제8장을 참고하시오.
7 취급 및 저장방법

취급:
- 안전 취급을 위한 예방조치
  작업장에서는 통풍이 잘되고, 습기제거가 잘되게 주의한다.
  조심스럽게 사용을 개봉하거나 취급한다.
  연무질이 형성되는 것을 피한다.
  화재 및 폭발 사고 예방책에 관한 정보:
    열로부터 보호한다.
  호흡보호장비를 항상 비치한다.
- 환경적 위험성 등 안전 저장 조건
  보관:
    안전한 저장 방법: 특별한 요구사항이 없음.
    하나의 공동 보관 시설에 대한 보관 관련 정보: 필요 없음
    보관 조건 예방 첨부된 추가적인 정보:
    용기설치지시와 안전한 제분포한다.
    열이나 적사광선으로부터 보호한다.
    구체적 최종 사용자 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

취급방법, 개인보호구
- 화학물질의 노출기준, 생물학적 노출기준 등:

<table>
<thead>
<tr>
<th>7778-50-9 Potassium Dichromate</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV (KR) 장기간의값: 0.05 mg/m³</td>
</tr>
<tr>
<td>as Cr</td>
</tr>
<tr>
<td>PEL (US) 장기간의값: 0.005* mg/m³</td>
</tr>
<tr>
<td>최고노출기준: 0.1** mg/m³</td>
</tr>
<tr>
<td>*as Cr(VI) **as CrO3; see 29 CFR 1910.1026</td>
</tr>
<tr>
<td>REL (US) 장기간의값: 0.0002 mg/m³</td>
</tr>
<tr>
<td>as Cr; See Pocket Guide Apps. A and C</td>
</tr>
<tr>
<td>TLV (US) 장기간의값: 0.05 mg/m³</td>
</tr>
<tr>
<td>as Cr; BEI</td>
</tr>
</tbody>
</table>

- 추가 정보: 제 조합 당시에 유효한 목록을 기초로 사용했다.
  노출통제
  개인보호구
- 일반적보호조치 및 위생조치:
  식료품 및 음료 수와 사료로부터 멀리 떨어뜨려 놓는다.
  물리적 손상이나 음료수가 묻은 옷은 즉시 사전이다.
  화학 물질이나 작업이 끝난 후에 손으로 씻는다.
  방호복은 따로 보관한다.
  피부와의 접촉은 피한다.
  눈과 피부와의 접촉은 피한다.
- 호흡기 보호:
  단 시간 또는 경미한 오염의 경우에는 호흡 보호장비 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.
제품명: POTASSIUM DICHROMATE 5% AQUEOUS

손 보호:
보호용 장갑

장갑재질은 제품/원료/조제물투과시키지아니야하고, 내구성이아니어야한다. 테스트를 하지 않았기 때문에 제품/조제/화학 혼합물에 적합한 장갑재질에 대한 추천이 없다. 투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

장갑의재료
적합한장갑의선택은재질이뿐만 아니라물질의사이도고려하여이루어야하고제조업종에따라서도 다르게선정되어야한다. 제조장갑의안정성이완전히체크되지하였음으로, 사용전에 확인되어야한다. 장갑 재료의 투과시간에 있어선만제조자에의하십시오, 준수되어야한다. 눈 보호:

곽조치눈보호안경

9 물리화학적 특성

- 기본 물리 및 화학적 특성에 대한 정보
  - 일반정보
    - 물리적 상태: 액체
    - 색: 오렌지색
    - 냄새: 무취
    - 무취
    - 냄새: 무취
  - pH 외경우 20 °C: 4
    
  - 상태변화
    - 녹는점/어는점: 100 °C
    - 초기 녹는점과 어는점 범위: 맞지않는
  - 인화점: 해당사항 없음.
  - 인화성(고체, 기체): 해당사항 없음.
  - 점화온도:
    - 분해 온도: 알맞지없다.
    - 자기점화: 제품은 자기점화성이다.
    - 폭발위험: 제품은 폭발위험이없다
  - 인화 또는 폭발 범위의 상한/하한
    - 아래로: 알맞지없다.
    - 위로: 알맞지없다.
  - 증기압의평균 20 °C: 23 hPa
  - 밀도의평균 20 °C: 1.0838 g/cm³
  - 비중: 알맞지없다.
  - 증기밀도: 알맞지없다.
### 제품명: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>항목</th>
<th>내용</th>
</tr>
</thead>
<tbody>
<tr>
<td>증발 속도:</td>
<td>알맞지 않다.</td>
</tr>
<tr>
<td>용해도:</td>
<td>각각의 경우에 따라서서는 거의 혼합할 수 없는</td>
</tr>
<tr>
<td>옥탄올/물 분배계수:</td>
<td>알맞지 않다.</td>
</tr>
<tr>
<td>점도:</td>
<td>알맞지 않다.</td>
</tr>
<tr>
<td>유기용매/물 분배계수:</td>
<td>알맞지 않다.</td>
</tr>
<tr>
<td>고체의 함량:</td>
<td>5.0 %</td>
</tr>
<tr>
<td>기타 정보:</td>
<td>추가적인 정보가 존재하지 않습니다.</td>
</tr>
</tbody>
</table>

### 10 안정성 및 반응성

- 반응성: 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성: 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에 따라 사용하는 경우에 반응할 수는 없습니다.
- 유해 반응 가능성 위험한 반응으로는 알려지지 않았다.
- 피해야 할 조건: 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해 반응 가능성: 위험성 있는 반응물들은 알려지지 않았다.

### 11 독성에 관한 정보

- 독성학적 영향에 대한 정보: 추가적인 정보가 존재하지 않습니다.
- 급성 독성:
  - LD/LC50-수치에 따른 분류: 7778-50-9 Potassium Dichromate
  - 구강 LD50: 190 mg/kg (mouse)
- 암발작용: 추가적인 정보가 존재하지 않습니다.
- 피부 부식성 또는 자극성: 피부와 점막을 자극할 수 있다.
- 심한 눈 손상 또는 자극성: 심각한 구상처의 위험이 있는 강한 자극
- 감각화: 호흡을 통해 감각화가능성이 있다.
- 피부 접촉을 통해 감각화가능성이 있다.
- 추가적인 독성에 관한 정보: 이 제품은 유럽 공동체의 공동분류 원칙의합 법적으로 접근하기 위해 근본적으로 안전한 것으로서 이에 따라 위험성을 제시하고 있다. 건강에 해로운 자극 성, 암을 유발하는 성, 암을 유발하는 성으로 평가되었습니다.
제품명: POTASSIUM DICHROMATE 5% AQUEOUS

12 환경에 미치는 영향

- 특성
  - 수생특성: 추가적인 정보가 존재하지 않습니다.
  - 지속성 및 분해성: 추가적인 정보가 존재하지 않습니다.
  - 환경 시스템에의 영향:
    - 생물농축 잠재성: 추가적인 정보가 존재하지 않습니다.
    - 토양내 이동성: 추가적인 정보가 존재하지 않습니다.
  - 생태독성: 의문.
  - 영향: 어류에독이됨.
  - 추가적인 확인식 정보:
  - 일반 특성:
    - 수질오염등급 3 (자체등급분류): 심하게수질오염이됨.
    - 지하수나, 하천으로 또는하수도망에도달하지않게한다. 역시극소수의양이라도안된다.
    - 지하수로아주가장하면기이유연이있을경우아래가시적수오염상태이다.
    - 하천에서는액시물고기나물로크론게는특성이있다.
    - 물속의유기체에독이되는것
    - PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 전류성, 고 생물농축성 물질) 평가 결과
      - PBT: 해당사항 없음.
      - vPvB: 해당사항 없음.
    - 기타 부작용: 추가적인 정보가 존재하지 않습니다.

13 폐기 시 주의사항

- 폐기를 처리 방법
  - 권고: 생활쓰레기와 함께 처리되어서는 안된다. 하수도망으로 유입되어서는 안된다.
  - 비위생적 포장:
  - 권고: 당국의 지침에일관한쓰레기처리.

14 운송에 필요한 정보

- 유엔 번호: UN2810
- ADR, IMDG, IATA
- UN 적정 선적명
  - 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, liquids, organic, n.o.s. (Potassium Dichromate)
제품명: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>교통 위험 클래스</th>
<th>ADR, IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>등급</td>
<td>6.1 독성물질</td>
</tr>
<tr>
<td>위험물 라벨</td>
<td>6.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Label</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>용기등급</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR, IMDG, IATA</td>
</tr>
<tr>
<td>III</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>환경적 유해물질:</th>
</tr>
</thead>
<tbody>
<tr>
<td>이물질은 환경오염물질을 함유하고 있다: Potassium Dichromate</td>
</tr>
<tr>
<td>해양오염물질:</td>
</tr>
<tr>
<td>심벌 (물고기와 나무)</td>
</tr>
<tr>
<td>특수 마킹 (ADR):</td>
</tr>
<tr>
<td>심벌 (물고기와 나무)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>이용자 특별 예방조치</th>
</tr>
</thead>
<tbody>
<tr>
<td>경고: 독성물질</td>
</tr>
<tr>
<td>위험 코드:</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>EMS-번호:</td>
</tr>
<tr>
<td>F-A,S-A</td>
</tr>
<tr>
<td>Stowage Category</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>Stowage Code</td>
</tr>
<tr>
<td>SW2 Clear of living quarters.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARPOL 73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송</th>
</tr>
</thead>
<tbody>
<tr>
<td>해당사항 없음.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>운송/추가 정보:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
</tr>
<tr>
<td>환경 수량 (LQ)</td>
</tr>
<tr>
<td>5L</td>
</tr>
<tr>
<td>Code: E1</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 1000 ml</td>
</tr>
<tr>
<td>Expected quantities (EQ)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>운송 구분</th>
</tr>
</thead>
<tbody>
<tr>
<td>터널 제한 코드</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited quantities (LQ)</td>
</tr>
<tr>
<td>5L</td>
</tr>
<tr>
<td>Code: E1</td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 ml</td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 1000 ml</td>
</tr>
<tr>
<td>Expected quantities (EQ)</td>
</tr>
</tbody>
</table>
제품명: POTASSIUM DICHROMATE 5% AQUEOUS

15 법적 규제현황

- 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률
  - Korean Existing Chemical Inventory
    - 7778-50-9 Potassium Dichromate KE-29094
    - 7732-18-5 water, distilled, conductivity or of similar purity KE-35400
  - GHS 라벨 요소
    - 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
    - 그림/문자
      - GHS03 GHS05 GHS07 GHS08 GHS09

- 신호어 위험
  - 상표상에 명확히 위험성이 표시된 성분
    - Potassium Dichromate
  - 유해 위험 문구
    - 화재를 강하게 함; 산화제 흡입하면 유해함 피부에 자극을 일으킴 눈에 심한 손상을 입을 수 있음 흡입시 알레르기성 반응, 천식 또는 호흡 곤란을 일으킬 수 있음 알레르기성 피부 반응을 일으킬 수 있음 유전적인 결함을 일으킬 수 있음 암을 일으킬 수 있음 태아 또는 생식능력에 손상을 입을 수 있음 호흡기 자극을 일으킬 수 있음 장기 및 또는 반복노출 되면 신체 중에 손상을 입을 수 있음 장기적인 영향에 의해 수생생물에게 유독함
  - 예방조치 문구
    - 가연성 물질과(와) 혼합되지 않도록 조치하시오.
    - 눈에 묻으면 병간 물로 씻어서 씻으십시오. 가능한면 콧 트렌즈를 제거하시오. 계속 씻으십시오. 즉시 독성물질센터/병원 연락 필요.
    - (라벨 참조) 처리를 하십시오.
    - 잠금장치가 있는 저장장소에 저장하시오.
    - 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

- 국내규정:
- 사용재해에 대한 정보:
  - 노동자들은 이러한 예방조치하에 예방을 유지하기는 성분을 유해한 위험물을 비리지 말아야 한다. 개별적인 경우
  - 암관령은 예외를 허가할 수 있다.
- 화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않음
16 그 밖의 참고사항

이보고는 우리지식에 대한 오늘날의 상태에 대하여 평가하고 있다. 하지만 이보고서는 생산특성에 관한 보증은 기술하지 않았으며 계약적인 법률관계에 기반을 두고있지도 않다.

· 최초 작성일자: 2015.12.29
· 개정 횟수 및 최종 개정일자: 1 / 2015.12.29
· 약어와 두문자어:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - 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
  - 산화성 액체 구분2: Oxidising Liquids, Hazard Category 2
  - 산화성 고체 구분2: Oxidising Solids, Hazard Category 2
  - 급성 독성(경구) 구분3: Acute toxicity, Hazard Category 3
  - 급성 독성(경마) 구분4: Acute toxicity, Hazard Category 4
  - 급성 독성(흡입) 구분2: Acute toxicity, Hazard Category 2
  - 피부 부식성/자극성 구분1: Skin corrosion/irritation, Hazard Category 1
  - 피부 부식성/자극성 구분2: Skin corrosion/irritation, Hazard Category 2
  - 심한 눈 손상/자극성 구분1: Serious eye damage/eye irritation, Hazard Category 1
  - 호흡기과민성 구분1: Sensitisation - Respirat. , Hazard Category 1
  - 피부과민성 구분1: Sensitisation - Skin, Hazard Category 1
  - 생식세포 변이원성 구분1A: Germ cell mutagenicity, Hazard Category 1A
  - 생식세포 변이원성 구분1B: Germ cell mutagenicity, Hazard Category 1B
  - 발암성 구분1A: Carcinogenicity, Hazard Category 1A
  - 발암성 구분1B: Carcinogenicity, Hazard Category 1B
  - 생식독성 구분1A: Reproductive toxicity, Hazard Category 1A
  - 생식독성 구분1B: Reproductive toxicity, Hazard Category 1B
  - 조직적기-1회노출 구분3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - 조직적기-반복노출 구분1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
  - 수생환경 유해성-급성 구분1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  - 수생환경 유해성-만성 구분1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  - 수생환경 유해성-만성 구분2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
1 Наименование вещества / препарата и фирмы / предприятия

- 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: sgkck@aol.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 Возможные виды опасности

- Классификация вещества или смеси
  пламя над окружностью
  Окисляющая жидкость 2 H272 Может усиливать горение; окислитель.

- опасность для здоровья
  Респираторная синкибилизация 1 H334 При вдыхании может вызывать аллергические или астматические симптомы или затруднение дыхания.
  Мутагенность 1А H340 Может вызывать генетические дефекты.
  Канцерогенность 1А H350 Может вызывать рак.
  Репродуктивная токсичность 1А H360 Может нанести ущерб плодовитости или нерожденному ребенку.
  CTOM - повторно 1 H372 Наносит вред органам в результате длительного или многократного воздействия.

- коррозия
  Повреждение глаз 1 H318 Вызывает серьезные повреждения глаз.

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

(Продолжение на странице 2)
Паспорт безопасности.
в соответствии с 1907/2006/EC, Статья 31

Дата печати: 29.12.2015
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Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

(Продолжение страницы 1)

Острая токсичность 4 Н332 Наносит вред при вдыхании.
Раздражение кожи 2 Н315 Вызывает раздражение кожи.
Кожная сенсибилизация 1 Н317 Может вызывать аллергическую кожную реакцию.
CTOM - однократно 3 Н335 Может вызывать раздражение дыхательных путей.

Острая токсичность 5 Н303 Может нанести вред при проглатывании.
Острая токсичность для воды 2 Н401 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 GHS07 GHS08 GHS09

- Сигнальное слово Опасно

- Компоненты этикетки, указывающие на опасность:
Potassium Dichromate

- Предупреждения об опасности
Может усилить горение; окислитель.
Может нанести вред при проглатывании.
Наносит вред при вдыхании.
Вызывает раздражение кожи.
Вызывает серьезные 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 плодовитости или нерожденному ребенку.
Может вызывать раздражение дыхательных путей.
Наносит вред органам в результате длительного или многократного воздействия.
Токсично для водных организмов с долгосрочными последствиями.

- Меры предосторожности
Принимать любые меры предосторожности для недопущения смешивания с горючими материалами.
Pри 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.
Применение специальных мер (см. на этом маркировочном знаке).
Хранить под замком.
Утилизировать содержимое / тару в соответствии с местными / региональными / национальными / международными предписаниями.

- Другие опасные факторы
- Результаты оценки РВТ (устойчивое биоаккумулятивное токсическое вещество) и вPvB (очень устойчивое биоаккумулятивное вещество)
- РВТ: Неприменимо.

(Продолжение на странице 3)
Паспорт безопасности.
в соответствии с 1907/2006/EC, Статья 31

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Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

(Продолжение страницы 2)

3 Состав / Данные по составляющим компонентам

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

<table>
<thead>
<tr>
<th>Содержащиеся опасные вещества:</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-50-9 Potassium Dichromate</td>
</tr>
<tr>
<td>Оксиляющее твёрдое вещество 2, H272;</td>
</tr>
<tr>
<td>Острая токсичность 2, H330;</td>
</tr>
<tr>
<td>Мутагенность 1B, H340;</td>
</tr>
<tr>
<td>Частичная интоксикация 1B, H360;</td>
</tr>
<tr>
<td>Разъедание кожи 1B, H314;</td>
</tr>
<tr>
<td>Острая токсичность для воды 1, H400;</td>
</tr>
<tr>
<td>Хроническая токсичность для воды 1, H410;</td>
</tr>
<tr>
<td>Кожная сенсипилзация 1, H317</td>
</tr>
</tbody>
</table>

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

4 Меры по оказанию первой помощи

- Описание мер первой медицинской помощи
- Общие указания:
  Симптомы оправления могут проявиться даже спустя много часов, поэтому имеется необходимость в медицинском наборе в течение как минимум 48 часов после аварии (несчастного случая).
- После вмешательства:
  Обеспечить доступ свежего воздуха и для надёжности 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.
- Указания для врача:
  Наиболее важные симптомы и эффекты, как немедленные, так и проявляющиеся впоследствии
  Отсутствует какая-либо соответствующая информация.
- Указания на необходимость оперативной медицинской помощи и специального режима
  Отсутствует какая-либо соответствующая информация.

5 Меры по борьбе с пожаром

- Средства пожаротушения
- Надлежащие средства тушения:
  CO2, порошковое средство для тушения или водяная струя мелкого разбрызгивания. При борьбе с крупными пожарами следует применять водяную струю мелкого разбрызгивания или спиртоустойчивую пену.
- Особые опасности, создаваемые веществом или смесью
  Отсутствует какая-либо соответствующая информация.
- Рекомендации для пожарных
- Защитное оснащение: Применение устройства защиты дыхательных путей.

(Продолжение на странице 4)
Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

6 Меры при непреднамеренном выделении (утечке)

· Меры по обеспечению личной безопасности, защитное снаряжение и порядок действий в чрезвычайной ситуации
  Не требуется.

· 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:
  Собирать при помощи связывающего жидкость материала (песка, кизельгура, кислотно-вязущего средства, универсальных вяжущих средств, опилок).
  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 Обращение с веществом и его хранение

· 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:
    Защищать от жара.
    Держать на готове устройство защиты органов дыхания.
  · Условия безопасного хранения, включая несовместимости
  · Хранение:
    · Требования, предъявляемые к складским помещениям и таре:
      Никаких особых требований не предъявляется.
    · Указания по совместимости с другими веществами при хранении:
      Не требуется.
    · Дальнейшие данные по условиям хранения:
      Держать ёмкости плотно закрытыми.
      Защищать от жара и от прямых солнечных лучей.
    · Характерное конечное применение (или применение)
      Отсутствует какая-либо соответствующая информация.

8 Ограничение воздействия вещества и контроль / индивидуальные средства защиты

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

· Параметры контроля

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

<table>
<thead>
<tr>
<th>7778-50-9 Potassium Dichromate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDK Краткосрочное значение: 0,01 мг/м³ аэрозоль, на Cr(VI)</td>
</tr>
</tbody>
</table>
9 Физические и химические свойства

- Информация по основным физическим и химическим свойствам
- Общая информация
- Внешний вид:
  Форма: Жидкость
  Цвет: Оранжевое
  Запах: Без запаха
### 10 Стабильность и реакционная способность

- Реакционная способность: Отсутствует какая-либо соответствующая информация.
- Химическая стабильность
  - Термический распад / условия, которых следует избегать: При использовании в соответствии с предписаниями не происходит никого 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.

### Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th>Основные свойства</th>
<th>Значение</th>
</tr>
</thead>
<tbody>
<tr>
<td>Порог запаха</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Значение pH при 20 °C</td>
<td>4</td>
</tr>
<tr>
<td>Изменение состояния</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Точка плавления / интервал температур плавления</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Точка кипения / интервал температур кипения</td>
<td>100 °C</td>
</tr>
<tr>
<td>Температурная точка вспышки</td>
<td>Неприменимо.</td>
</tr>
<tr>
<td>Воспламеняемость (твёрдое, газообразное вещество)</td>
<td>Неприменимо.</td>
</tr>
<tr>
<td>Температура воспламенения</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Самовоспламеняемость</td>
<td>Продукт не является самовоспламеняемым.</td>
</tr>
<tr>
<td>Взрывоопасность</td>
<td>Продукт не является взрывоопасным.</td>
</tr>
<tr>
<td>Границы взрываемости</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Давление пара при 20 °C</td>
<td>23 гаПа</td>
</tr>
<tr>
<td>Плотность при 20 °C</td>
<td>1.0838 г/см³</td>
</tr>
<tr>
<td>Относительная плотность</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Плотность пара</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Скорость испарения</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Растворимость в / Смешиваемость с водой</td>
<td>Несмешиваемо или трудносмешиваемо.</td>
</tr>
<tr>
<td>Коэффициент распределения (n-октанол / вода)</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Вязкость</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Динамическая</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Кинематическая</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Содержание растворителя</td>
<td>Не определено.</td>
</tr>
<tr>
<td>Органические растворители</td>
<td>0,0 %</td>
</tr>
<tr>
<td>Вода</td>
<td>95,0 %</td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0,00 %</td>
</tr>
<tr>
<td>Содержание твёрдых тел</td>
<td>5,0 %</td>
</tr>
<tr>
<td>Другая информация</td>
<td>Отсутствует какая-либо соответствующая информация.</td>
</tr>
</tbody>
</table>
Паспорт безопасности.
в соответствии с 1907/2006/EC, Статья 31

Дата печати: 29.12.2015
Дата редактирования: 29.12.2015

Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

(Продолжение страницы 6)

11 Данные по токсикологии

- Использовано токсикологическое воздействие
- Острая токсичность:
  - Значения LD/LC50 (летальной дозы/концентрации), необходимые для классификации:
    7778-50-9 Potassium Dichromate
    Орально (через рот) LD50 190 мг/кг (mouse)

- Первичное раздражающее воздействие:
  - на кожу: Раздражает кожу и слизистые оболочки.
  - на глаза: 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
    Раздражающее
    Вызывает рак
    Продукт может привести к повреждениям, передаваемым по наследству.

- Информация по следующим группам потенциальных воздействий:
  - Канцерогенное, изменяющее наследственность и вызывающее бесплодие действие
    Мутагенность 1А, Канцерогенность 1А, Репродуктивная токсичность 1А

12 Экологическая информация

- 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 группе: Отсутствует какая-либо соответствующая информация.
  - Экотоксические воздействия:
    - Примечания: Ядовито для рыб.

- Дополнительные экологические указания:
  - Общие указания:
    - Класс вредности для воды 3 (Само-классификация): очень вредно для воды
    - Не допускать попадания продукта в грязные воды, водоёмы или в канализационную систему, даже в малых количествах.
    - Вред для питьевой воды при попадании под землю даже минимальных количеств.
    - В водеах ядовито также для рыб и планктона.
    - Ядовито для водных организмов.

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

- Другие вредные эффекты Отсутствует какая-либо соответствующая информация.

(Продолжение на странице 8)
13 Указания по утилизации

· 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 по транспорту

· Номер UN
  ADR, IMDG, IATA UN2810

· Собственное транспортное наименование ООН
  · ADR
    2810 ТОКСИЧНАЯ ЖИДКОСТЬ ОРГАНИЧЕСКАЯ, Н.У.К (Potassium Dichromate), ОПАСНОЕ ДЛЯ ОКРУЖАЮЩЕЙ СРЕДЫ
  · IMDG
    TOXIC LIQUID, ORGANIC, N.O.S. (Potassium Dichromate), MARINE POLLUTANT
  · IATA
    Toxic, liquids, organic, n.o.s. (Potassium Dichromate)

· Классов опасности транспорта
  · ADR, IMDG

  - Класс
    6.1 Токсичные вещества

  - 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

· Код опасности (по Кемлеру):
  60

· Номер EMS:
  F-A,S-A

· Stowage Category
  A
## Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

<table>
<thead>
<tr>
<th><strong>Stowage Code</strong></th>
<th>SW2 Clear of living quarters.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Транспорт / дополнительная информация:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADR</strong></td>
<td></td>
</tr>
<tr>
<td>Ограниченные объёмы (LQ)</td>
<td>5L</td>
</tr>
<tr>
<td>Код: E1</td>
<td></td>
</tr>
<tr>
<td>Максимальное количество нетто на внутреннюю тару: 30 мл</td>
<td></td>
</tr>
<tr>
<td>Максимальное количество нетто на наружную тару: 1000 мл</td>
<td></td>
</tr>
<tr>
<td>Освобожденные количества (EQ)</td>
<td></td>
</tr>
<tr>
<td><strong>Транспортная категория</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Код ограничения проезда через туннели</strong></td>
<td>E</td>
</tr>
<tr>
<td><strong>IMDG</strong></td>
<td></td>
</tr>
<tr>
<td>Limited quantities (LQ)</td>
<td>5L</td>
</tr>
<tr>
<td>Code: E1</td>
<td></td>
</tr>
<tr>
<td>Maximum net quantity per inner packaging: 30 мл</td>
<td></td>
</tr>
<tr>
<td>Maximum net quantity per outer packaging: 1000 мл</td>
<td></td>
</tr>
<tr>
<td>Excepted quantities (EQ)</td>
<td></td>
</tr>
<tr>
<td><strong>UN &quot;Model Regulation&quot;:</strong></td>
<td></td>
</tr>
<tr>
<td>UN 2810 ТОКСИЧНАЯ ЖИДКОСТЬ ОРГАНИЧЕСКАЯ, Н.У.К (POTASSIUM DICHROMATE), 6.1, III, ОПАСНОЕ ДЛЯ ОКРУЖАЮЩЕЙ СРЕДЫ</td>
<td></td>
</tr>
</tbody>
</table>

## Предписания

- **Нормы безопасности, правила охраны труда и экологические нормативы или стандарты, действующие для вещества или смеси**
- **Элементы маркировки в соответствии с СТС**
  Данный продукт классифицируется и маркируется в соответствии с Согласованной на глобальном уровне системой классификации и маркировки химических веществ (GHS).
- **Пиктограммы, обозначающие опасности**
  - GHS03
  - GHS05
  - GHS07
  - GHS08
  - GHS09

## Сигнальное слово Опасно

- **Компоненты этикетки, указывающие на опасность:**
  - Potassium Dichromate
- **Предупреждения об опасности**
  - Может усиливать горение; окислитель.
  - Может нанести вред при проглатывании.
  - Наносит вред при вдыхании.
  - Вызывает раздражение кожи.
  - Вызывает серьёзные повреждения глаз.
Паспорт безопасности.
в соответствии с 1907/2006/EC, Статья 31
Дата печати: 29.12.2015
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Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

(Продолжение страницы 9)

При вдыхании может вызывать аллергические или астматические симптомы или затруднение дыхания. Могут вызывать аллергическую кожную реакцию. Может вызывать генетические дефекты. Может вызывать рак. Может нанести ущерб плодовитости или нерожденному ребенку. Может вызывать раздражение дыхательных путей. Наносит вред органам в результате длительного или многократного воздействия. Токсично для водных организмов с долгосрочными последствиями.

· Меры предосторожности

Принимать любые меры предосторожности для недопущения смешивания с горючими материалами. 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/врачу. Применение специальных мер (см. на этом маркировочном знаке). 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 Прочая информация:

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

· Соответствующие данные

H272 Может усилить сухость; окислитель.
H301 Токсично при проглатывании.
H312 Наносит вред при контакте с кожей.
H314 Вывещивает 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.

· Аббревиатуры и акронимы:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic

(Продолжение на странице 11)
Торговое наименование: POTASSIUM DICHROMATE 5% AQUEOUS

| vPvB: very Persistent and very Bioaccumulative |
| Окисляющая жидкость 2: Oxidising Liquids, Hazard Category 2 |
| Окисляющее твёрдое вещество 2: Oxidising Solids, Hazard Category 2 |
| Острая токсичность 3: Acute toxicity, Hazard Category 3 |
| Острая токсичность 5: Acute toxicity, Hazard Category 5 |
| Острая токсичность 4: Acute toxicity, Hazard Category 4 |
| Острая токсичность 2: Acute toxicity, Hazard Category 2 |
| Разъедание кожи 1B: Skin corrosion/irritation, Hazard Category 1B |
| Раздражение кожи 2: Skin corrosion/irritation, Hazard Category 2 |
| Повреждение глаз 1: Serious eye damage/eye irritation, Hazard Category 1 |
| Респираторная сенсибилизация 1: Sensitisation - Respirat., Hazard Category 1 |
| Кожная сенсибилизация 1: Sensitisation - Skin, Hazard Category 1 |
| Мутагенность 1A: Germ cell mutagenicity, Hazard Category 1A |
| Мутагенность 1B: Germ cell mutagenicity, Hazard Category 1B |
| Канцерогенность 1A: Carcinogenicity, Hazard Category 1A |
| Канцерогенность 1B: Carcinogenicity, Hazard Category 1B |
| Репродуктивная токсичность 1A: Reproductive toxicity, Hazard Category 1A |
| Репродуктивная токсичность 1B: Reproductive toxicity, Hazard Category 1B |
| СТОМ - однократно 3: Specific target organ toxicity - Single exposure, Hazard Category 3 |
| СТОМ - повторно 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1 |
| Острая токсичность для воды 1: Hazardous to the aquatic environment - AcuteHazard, Category 1 |
| Острая токсичность для воды 2: Hazardous to the aquatic environment - AcuteHazard, Category 2 |
| Хроническая токсичность для воды 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1 |
| Хроническая токсичность для воды 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2 |
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
· Utilización del producto / de la elaboración Sustancias químicas de laboratorio

1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados
No existen más datos relevantes disponibles.

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: sgkck@aol.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.

GHS08 peligro para la salud

Resp. Sens. 1 H334 Puede provocar síntomas de alergia o asma o dificultades respiratorias en caso de inhalación.
Muta. 1A H340 Puede provocar defectos genéticos.
Carc. 1A H350 Puede provocar cáncer.
Repr. 1A H360FD Puede perjudicar a la fertilidad. Puede dañar al feto.
STOT RE 1 H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.

GHS05 corrosión

Eye Dam. 1 H318 Provoca lesiones oculares graves.

( se continua en página 2 )
Ficha de datos de seguridad
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Revisión: 29.12.2015

Nombre comercial: POTASSIUM DICROMATE 5% AQUEOUS

GHS09 medio ambiente

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

GHS07

Acute Tox. 4 H332 Nocivo en caso de inhalación.
Skin Irrit. 2 H315 Provoca irritación cutánea.
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) nº 1272/2008
  El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
- Pictogramas de peligro

GHS03 GHS05 GHS07 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.
  H332 Nocivo en caso de inhalación.
  H315 Provoca irritación cutánea.
  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.
  H372 Provoca daños en los órganos tras exposiciones prolongadas o repetidas.
  H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

- Concejios de prudencia
  P221 Tomar todas las precauciones necesarias para no mezclar con materias combustibles.
  P305+P351+P338 EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.
  P310 Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.
  P321 Se necesita un tratamiento específico (ver en esta etiqueta).
  P405 Guardar bajo llave.
  P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

2.3 Otros peligros
- Resultados de la valoración PBT y mPmB

- PBT: No aplicable.
Ficha de datos de seguridad
según 1907/2006/CE, Artículo 31

Nombre comercial: POTASSIUM DICHROMATE 5% AQUEOUS

· mPmB: No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· 3.2 Caracterización química: Mezclas
· Descripción: Mezcla formada por las substancias especificadas a continuación con adiciones no peligrosas.

<table>
<thead>
<tr>
<th>Componentes peligrosos:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7778-50-9</td>
<td>dicromato de potasio</td>
</tr>
<tr>
<td>EINECS: 231-906-6</td>
<td></td>
</tr>
<tr>
<td>Ox. Sól. 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</td>
<td></td>
</tr>
<tr>
<td>2,5-10%</td>
<td></td>
</tr>
</tbody>
</table>

· SVHC

| 7778-50-9 dicromato de potasio |

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

SECCIÓN 4: Primeros auxilios

· 4.1 Descripción de los primeros auxilios
· Instrucciones generales:
Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

· En caso de inhalación del producto:
Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.

· 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.

· 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:
CO2, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al álcool.

· 5.2 Peligros específicos derivados de la sustancia o la mezcla No existen más datos relevantes disponibles.

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

SECCIÓN 6: Medidas en caso de vertido accidental

· 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia No es necesario.

· 6.2 Precauciones relativas al medio ambiente:
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.

( se continua en página 4 )
Ficha de datos de seguridad
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- 6.3 Métodos y material de contención y de limpieza:
  Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
  Desechar el material contaminado como vertido según item 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.

- 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.

SECCIÓN 8: Controles de exposición/protección individual

- Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:
  Sin datos adicionales, ver punto 7.
- 8.1 Parámetros de control
  - Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:
    7778-50-9 dicromato de potasio
    LEP Valor de larga duración: 0,05 mg/m³
    Sen,r,TR1B, véase Apartado 8
  - Componentes con valores límite biológicos:
    7778-50-9 dicromato de potasio
    VLB 10 µg/l
    Muestra: en orina
    Momento de Muestreo: Principio y final de la jornada laboral
    Indicador Biológico: Cromo total
    25 µg/l
    Muestra: en orina
    Momento de Muestreo: 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.
      Quitar 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 la piel.
      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.png)
    El material del guante deberá ser impermeable y resistente al producto / substancia / preparado. Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de substancias químicas. Seleccion 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 avaluada 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.png)

**SECCIÓN 9: Propiedades físicas y químicas**

| · **9.1 Información sobre propiedades físicas y químicas básicas** |
| · **Datos generales** |
| · **Aspecto:** |
| **Forma:** Liquido |
| **Color:** Anaranjado |
| **Olor:** Inodoro |
| **Umbral olfativo:** No determinado. |
| · **valor pH a 20 °C:** 4 |
| · **Cambio de estado** |
| **Punto de fusión /campo de fusión:** Indeterminado. |
| **Punto de ebullición /campo de ebullición:** 100 °C |
| · **Punto de inflamación:** No aplicable. |
Ficha de datos de seguridad  
según 1907/2006/CE, Artículo 31

Nombre comercial: POTASSIUM DICHROMATE 5% AQUEOUS

| · Inflamabilidad (sólido, gaseiforme): | No aplicable. |
| · Temperatura de ignición: | |
| Temperatura de descomposición: | No determinado. |
| · Autoinflamabilidad: | El producto no es autoinflamable. |
| · Peligro de explosión: | 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/cm³ |
| · Densidad relativa | No determinado. |
| · Densidad de vapor | No determinado. |
| · Velocidad 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: | |
| Disolventes orgánicos: | 0.0 % |
| 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.
· 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
  Nocivo 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)
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 (autoclasificación): muy peligroso para el agua
  No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados, ni siquiera en pequeñas cantidades.
  Una cantidad ínfima vertida en el subsuelo ya representa un peligro para el agua potable.
  Vertido en aguas superficiales, también es tóxico para los peces y el plancton. tóxico para organismos acuáticos
- 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

<table>
<thead>
<tr>
<th>14.1 Número ONU</th>
<th>UN2810</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR, IMDG, IATA</td>
<td></td>
</tr>
</tbody>
</table>

**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, liquids, organic, n.o.s. (Potassium Dichromate) |

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

<table>
<thead>
<tr>
<th>ADR, IMDG</th>
</tr>
</thead>
</table>

- **Clase**: 6.1 Materias tóxicas
- **Etiqueta**: 6.1

<table>
<thead>
<tr>
<th>IATA</th>
</tr>
</thead>
</table>

- **Class**: 6.1 Materias tóxicas
- **Label**: 6.1

**14.4 Grupo de embalaje**

<table>
<thead>
<tr>
<th>ADR, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
</tr>
</tbody>
</table>

**14.5 Peligros para el medio ambiente**

- **Contaminante marino**: Símbolo (pez y árbol)
- **Marcado especial (ADR)**: Símbolo (pez y árbol)

**14.6 Precauciones particulares para los usuarios**

- **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**

<table>
<thead>
<tr>
<th>ADR</th>
</tr>
</thead>
</table>

- **Cantidades limitadas (LQ)**: 5L
- **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
**Nombre comercial:** POTASSIUM DICHROMATE 5% AQUEOUS

- IMDG
- Limited quantities (LQ) 5L
  - Code: E1
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 1000 ml
- Excepted quantities (EQ)
- “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
    - 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

- 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 ingestaión.
  - 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.
  - H344 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.
Nombre comercial: POTASSIUM DICHROMATE 5% AQUEOUS

- Abreviaturas y acrónimos:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  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: Oxidising Liquids, Hazard Category 2
  Ox. Sol. 2: Oxidising Solids, Hazard Category 2
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Acute Tox. 2: Acute toxicity, Hazard Category 2
  Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  Muta. 1A: Germ cell mutagenicity, Hazard Category 1A
  Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
  Carc. 1A: Carcinogenicity, Hazard Category 1A
  Carc. 1B: Carcinogenicity, Hazard Category 1B
  Repr. 1A: Reproductive toxicity, Hazard Category 1A
  Repr. 1B: Reproductive toxicity, Hazard Category 1B
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
  Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2