

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/11/2021

Reviewed on 06/11/2021

1 Identification

- **Product identifier**
- **Trade name:** Potassium Chromate
5% w/v Indicator Solution
- **Article number:** CY071
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson shermann@aquasolutions.org
Technical Coordinator
Sherman Nelson shermann@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

Carc. 1B H350 May cause cancer.



GHS07

Skin Sens. 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**



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Potassium Chromate
- **Hazard statements**
May cause an allergic skin reaction.
May cause genetic defects.
May cause cancer.

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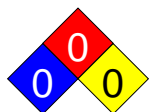
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· **Precautionary statements**

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 IF exposed or concerned: Get medical advice/attention.
 Specific treatment (see on this label).
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0
 Fire = 0
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2
 Fire = 0
 Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

| | | |
|----------------|--------------------|--------|
| CAS: 7789-00-6 | Potassium Chromate | 4.846% |
|----------------|--------------------|--------|

· **Table of Nonhazardous Ingredients**

| | | |
|----------------|-------|---------|
| CAS: 7732-18-5 | Water | 95.154% |
|----------------|-------|---------|

4 First-aid measures

· **Description of first aid measures**

· **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.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

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

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- **Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
 Dilute with plenty of water.
 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.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

| | | |
|----------------|--------------------|------------------------|
| CAS: 7789-00-6 | Potassium Chromate | 0.56 mg/m ³ |
|----------------|--------------------|------------------------|

- **PAC-2:**

| | | |
|----------------|--------------------|-----------------------|
| CAS: 7789-00-6 | Potassium Chromate | 9.7 mg/m ³ |
|----------------|--------------------|-----------------------|

- **PAC-3:**

| | | |
|----------------|--------------------|----------------------|
| CAS: 7789-00-6 | Potassium Chromate | 58 mg/m ³ |
|----------------|--------------------|----------------------|

7 Handling and storage

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

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· **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:**

CAS: 7789-00-6 Potassium Chromate

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

TLV Short-term value: 0.0005 mg/m³
 Long-term value: 0.0002 mg/m³
 as Cr(VI); inhalable, Skin; BEI, DSEN, RSEN

· **Ingredients with biological limit values:**

CAS: 7789-00-6 Potassium Chromate

BEI 25 µg/L
 LD50 Intraperitoneal: urine
 Time: end of shift at end of workweek
 LD50: Total chromium (fume)

10 µg/L
 LD50 Intraperitoneal: urine
 Time: increase during shift
 LD50: Total chromium (fume)

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· **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

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· **Material of gloves**

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

· **Penetration time of glove material**

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

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

| | |
|------------------------|-----------------|
| Form: | Liquid |
| Color: | Light yellow |
| Odor: | Odorless |
| Odor threshold: | Not determined. |

· **pH-value:** Not determined.

· **Change in condition**

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

· **Flash point:** Not applicable.

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

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

· **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density at 20 °C (68 °F):** 1.03168 g/cm³ (8.60937 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Fully miscible.

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

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- | | |
|----------------------------|--|
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Water: | 95.2 % |
| VOC content: | 0.00 % |
| | 0.0 g/l / 0.00 lb/gal |
| Solids content: | 4.8 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

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

11 Toxicological information

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

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

ATE (Acute Toxicity Estimate)

Oral LD50 3,714 mg/kg (mouse)

CAS: 7789-00-6 Potassium Chromate

Oral LD50 100 mg/kg (ATE)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
The product can cause inheritable damage.

- **Carcinogenic categories**

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

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I

- **NTP (National Toxicology Program)**

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

None of the ingredients is listed.

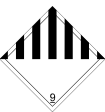
12 Ecological information

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

13 Disposal considerations

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

14 Transport information

- | | |
|---|--|
| · UN-Number | UN3082 |
| · DOT, IMDG, IATA | |
| · UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (Potassium Chromate) |
| · DOT | |
| · IMDG, IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Potassium Chromate) |
| · Transport hazard class(es) | |
| · DOT, IMDG | |
|  | |
| · Class | 9 Miscellaneous dangerous substances and articles |

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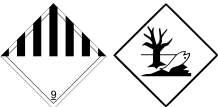
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| | |
|---|--|
| · Label | 9 |
| · IATA | |
|  | |
| · Class | 9 Miscellaneous dangerous substances and articles |
| · Label | 9 |
| · Packing group | |
| · DOT, IMDG, IATA | III |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special marking (IATA): | Symbol (fish and tree) |
| · Special precautions for user | Warning: Miscellaneous dangerous substances and articles |
| · Hazard identification number (Kemler code): | 90 |
| · EMS Number: | F-A,S-F |
| · Stowage Category | A |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Remarks: | Not regulated |
| · 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 |
| · Remarks: | Not regulated |
| · IATA | |
| · Remarks: | Not regulated |
| · UN "Model Regulation": | UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POTASSIUM CHROMATE), 9, III |

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):

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· TSCA (Toxic Substances Control Act):

Water

ACTIVE

Potassium Chromate

ACTIVE

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· **Hazardous Air Pollutants**

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

· **Proposition 65**

· **Chemicals known to cause cancer:**

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

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

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

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

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

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

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

| | | |
|----------------|--------------------|--------------------------------------|
| CAS: 7789-00-6 | Potassium Chromate | A(inh), D(oral), K/L(inh), CBD(oral) |
|----------------|--------------------|--------------------------------------|

· **TLV (Threshold Limit Value)**

| | | |
|----------------|--------------------|----|
| CAS: 7789-00-6 | Potassium Chromate | AI |
|----------------|--------------------|----|

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

| | |
|----------------|--------------------|
| CAS: 7789-00-6 | Potassium Chromate |
|----------------|--------------------|

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

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

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

Potassium Chromate

· **Hazard statements**

May cause an allergic skin reaction.

May cause genetic defects.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

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

Avoid breathing dust/fume/gas/mist/vapors/spray

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

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

If on skin: Wash with plenty of water.

If exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

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

Wash contaminated clothing before reuse.

Store locked up.

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

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- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials:**
 Carcinogenic hazardous material group III (dangerous).
- **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.

- **Department issuing SDS:** Environment protection department.
- **Contact:**
- **Date of preparation / last revision**
 Revision 1.0, 12-30-2019: Added additional ingredients per customer request. STN
 Revision 1.0 05-07-2021: updated hazard information. STN
 06/11/2021 / 1.0
- **Abbreviations and acronyms:**
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 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
 Skin Sens. 1: Skin sensitisation – Category 1
 Muta. 1B: Germ cell mutagenicity – Category 1B
 Carc. 1B: Carcinogenicity – Category 1B
- *** Data compared to the previous version altered.**

US