Printing date 11/02/2023 Reviewed on 11/02/2023

1 Identification

· Product identifier

· Product Name: 1000 μg/mL Chromate

· Part Name:

AS-CRO49-2Y

AS-CRO49-2X

- · Application of the substance / the mixture For Laboratory Use Only
- · Uses advised against Not for Human or Animal Use
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Spex CertiPrep, LLC.

203 Norcross Ave, Metuchen,

NJ 08840 USA

732-549-7144

USMet-CRMSales@antylia.com

- · Information department: product safety department
- · Emergency telephone number:

Emergency Phone Number (24 hours)

CHEMTREC (800-424-9300) Outside US: 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Germ Cell Mutagenicity 1B H340 May cause genetic defects.

Carcinogenicity 1A H350 May cause cancer.

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



GHS08

· Signal word Danger

· Hazard-determining components of labeling:

water, distilled, conductivity or of similar purity

potassium chromate

· Hazard statements

H340 May cause genetic defects.

H350 May cause cancer.

· Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

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

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 0 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *0 Fire = 0Reactivity = 0



Printing date 11/02/2023 Reviewed on 11/02/2023

Product Name: 1000 µg/mL Chromate

(Contd. of page 1)

- · 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:			
7789-00-6 potassium chromate	0.17%		
· Chemical identification of the substance/preparation			
7732-18-5 water, distilled, conductivity or of similar purity			

4 First-aid measures

- · Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: Do not give anything to eat or drink Do not induce vomitting
- · Information for Doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

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

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Dilute with plenty of water.
- · Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to section 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:		
7789-00-6 potassium chromate	0.56 mg/m^3	
· PAC-2:		
7789-00-6 potassium chromate	9.7 mg/m^3	
· PAC-3:		
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.

- $\cdot \textbf{Information about protection against explosions and fires:} \textit{Keep respiratory protective device available}.$
- · 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.



Printing date 11/02/2023 Reviewed on 11/02/2023

Product Name: 1000 µg/mL Chromate

(Contd. of page 2)

· 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 section 7.
- · Control parameters

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

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); A1; inhalable, Skin; BEI, DSEN, RSEN

· Ingredients with biological limit values:

7789-00-6 potassium chromate

BEI | 25 μg/L

Medium: urine

Time: end of shift at end of workweek Parameter: Total chromium (fume)

 $10 \,\mu g/L$

Medium: urine

Time: increase during shift Parameter: Total chromium (fume)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

 ${\it Keep away from foodstuffs, beverages and feed.}$

Wash hands before breaks and at the end of work.

Store protective clothing separately.

 $\cdot \textit{Respiratory protection:}$

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.
- · Eve protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid

Color: According to product specification

(Contd. on page 4)



Printing date 11/02/2023 Reviewed on 11/02/2023

Product Name: 1000 µg/mL Chromate

	(Contd. of page 3)
· Odor:	Characteristic
· Odour Threshold:	Not applicable.
· pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not applicable.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not applicable.
Upper:	Not applicable.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F)	1.00294 g/cm³ (8.36953 lbs/gal)
· Relative density	Not applicable.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/water): Not applicable.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Water:	99.8 %
VOC content:	0.00 %
Solids content:	0.2 %

10 Stability and reactivity

- $\cdot \textit{Reactivity No further relevant information available}.$
- $\cdot \textit{Chemical stability}$

· Other information

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

No further relevant information available.

- · 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:

7789-00-6 potassium chromate

Oral LD50 180 mg/kg (mouse)

- Primary irritant effect:
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

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

The product can cause inheritable damage.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

7789-00-6 potassium chromate

(Contd. on page 5)



Printing date 11/02/2023 Reviewed on 11/02/2023

Product Name: 1000 µg/mL Chromate

(Contd. of page 4)

· NTP (National Toxicology Program)

7789-00-6 potassium chromate

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.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · 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 · DOT, ADR, IMDG, IATA	Not Regulated	
· UN proper shipping name · DOT, ADR, IMDG, IATA	Not Regulated	
· Transport hazard class(es)		
· DOT, ADR, ADN, IMDG, IATA · Class	Not Regulated	
· Packing group · DOT, ADR, IMDG, IATA	Not Regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.		
· UN "Model Regulation":	Not Regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 313 (Specific toxic chemical listings):

7789-00-6 potassium chromate

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

7789-00-6 potassium chromate

- · Proposition 65
- · Chemicals known to cause cancer:

7789-00-6 potassium chromate

· Chemicals known to cause reproductive toxicity for females:

7789-00-6 potassium chromate

(Contd. on page 6)

Reviewed on 11/02/2023 Printing date 11/02/2023

Product Name: 1000 µg/mL Chromate

(Contd. of page 5)

· Chemicals known to cause reproductive toxicity for males:

7789-00-6 potassium chromate

· Chemicals known to cause developmental toxicity:

7789-00-6 potassium chromate

· Carcinogenic categories

· EPA (Environmental Protection Agency)

7789-00-6 potassium chromate A(inh), D(oral), K/L(inh), CBD(oral)

· TLV (Threshold Limit Value)

7789-00-6 potassium chromate

A1

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

7789-00-6 potassium chromate

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



· Signal word Danger

· Hazard-determining components of labeling:

water, distilled, conductivity or of similar purity potassium chromate

· Hazard statements

H340 May cause genetic defects.

H350 May cause cancer.

· Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405

P501 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

· 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: product safety department

· Contact:

Spex CertiPrep, LLC.

1-732-549-7144

· Date of preparation / last revision 11/02/2023

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit BEI: Biological Exposure Limit

Germ Cell Mutagenicity 1B: Germ cell mutagenicity

Carcinogenicity 1A: Carcinogenicity - Category 1A