

Safety data sheet
according to 1907/2006/EC, Article 31 Commission
regulation (EU) 2020/878

Printing date 24.03.2023

Version number 14.0 (replaces version 13.0)

Revision: 23.03.2023

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

1.1 Product identifier

• **Trade name:** Potassium dichromate, secondary standard for volumetric titrations, Titrasure®

• **Article number:** PO0235

• **CAS Number:**

7778-50-9

• **EC number:**

231-906-6

• **Index number:**

024-002-00-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

SDS according to Article 31 of Regulation (EC) 1907/2006. According to Article 14 (1) of UK REACH Regulation (EC) No 1907/2006, exposure assessment and risk characterisation are not required.

• **Application of the substance / the preparation:** Laboratory reagent

1.3 Details of the supplier of the safety data sheet

• **Manufacturer/Supplier:**

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa

08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com

Internet Web Site: www.scharlab.com

• **Regional representation:**

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa

08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com

Internet Web Site: www.scharlab.com

• **Further information obtainable from:** Technical Department

1.4 Emergency telephone number:

Please contact the regional Scharlab distributor/dealer in your country

During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

• **Classification according to Regulation (EC) No 1272/2008**



flame over circle

Ox. Sol. 2

H272

May intensify fire; oxidiser.



skull and crossbones

Acute Tox. 3

H301

Toxic if swallowed.

Acute Tox. 2

H330

Fatal if inhaled.

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health hazard

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



corrosion

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

Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.



Acute Tox. 4	H312	Harmful in contact with skin.
Skin Sens. 1	H317	May cause an allergic skin reaction.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS03



GHS05



GHS06



GHS08



GHS09

Signal word Danger

Hazard statements

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H330	Fatal if inhaled.
H314	Causes severe skin burns and eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to the respiratory system through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

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Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P320 Specific treatment is urgent (see on this label).
- P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment**

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

SECTION 3: Composition/information on ingredients**3.1 Substances****CAS No. Description**

7778-50-9 potassium dichromate

Identification number(s)• **EC number:** 231-906-6• **Index number:** 024-002-00-6**SVHC**

7778-50-9 potassium dichromate

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

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

After inhalation:

Supply fresh air or oxygen; call for doctor.

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

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

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

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

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
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:**
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Do not eat, drink or smoke during use.
Wash hands after handling.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
See product's label for recommended storage temperature.
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****7778-50-9 potassium dichromate**

WEL Long-term value: 0.01 0.025* mg/m³
as Cr; Carc, Sen, BMGV; *process generated

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

Appropriate engineering controls No further data; see item 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

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

Hand protection

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.

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/face protection

Tightly sealed goggles

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

• General Information	
• Physical state	Solid
• Colour:	Orange
• Odour:	Odourless
• Odour threshold:	Not determined.
• Melting point/freezing point:	398 °C
• Boiling point or initial boiling point and boiling range	>500 °C
• Flammability	Contact with combustible material may cause fire.
• Lower and upper explosion limit	
• Lower:	Not determined.
• Upper:	Not determined.
• Flash point:	Not applicable.
• Decomposition temperature:	Not determined.
• pH	Not applicable.
• Viscosity:	
• Kinematic viscosity	Not applicable.
• Dynamic:	Not applicable.
• Solubility	
• water at 20 °C:	125 g/l
• Partition coefficient n-octanol/water (log value)	Not determined.
• Vapour pressure at 20 °C:	0 hPa
• Density and/or relative density	
• Density at 20 °C:	2.676 g/cm ³
• Relative density	Not determined.
• Vapour density	Not applicable.

9.2 Other information

• Appearance:	
• Form:	Crystalline
• Important information on protection of health and environment, and on safety.	
• Auto-ignition temperature:	Not determined.
• Explosive properties:	Product does not present an explosion hazard.
• Molecular weight	294.19 g/mol
• Change in condition	
• Evaporation rate	Not applicable.
• Information with regard to physical hazard classes	
• Explosives	Void
• Flammable gases	Void
• Aerosols	Void
• Oxidising gases	Void
• Gases under pressure	Void
• Flammable liquids	Void
• Flammable solids	Void
• Self-reactive substances and mixtures	Void
• Pyrophoric liquids	Void
• Pyrophoric solids	Void
• Self-heating substances and mixtures	Void

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|--|-------------------------------|
| • Substances and mixtures, which emit flammable gases in contact with water | Void |
| • Oxidising liquids | Void |
| • Oxidising solids | May intensify fire; oxidiser. |
| • Organic peroxides | Void |
| • Corrosive to metals | Void |
| • Desensitised explosives | Void |

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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
Toxic if swallowed.
Harmful in contact with skin.
Fatal if inhaled.
- **LD/LC50 values relevant for classification:**
Oral LD50 190 mg/kg (mouse)
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Germ cell mutagenicity** May cause genetic defects.
- **Carcinogenicity** May cause cancer.
- **Reproductive toxicity** May damage fertility. May damage the unborn child.
- **STOT-repeated exposure**
Causes damage to the respiratory system through prolonged or repeated exposure.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.

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12.7 Other adverse effects

• **Remark:** Very toxic for fish

• **Additional ecological information:**

• **General notes:**

Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

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

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

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 or ID number

• **ADR, IMDG, IATA**

UN3288

14.2 UN proper shipping name

• **ADR**

3288 TOXIC SOLID, INORGANIC, N.O.S. (potassium dichromate), ENVIRONMENTALLY HAZARDOUS

• **IMDG**

TOXIC SOLID, INORGANIC, N.O.S. (potassium dichromate), MARINE POLLUTANT

• **IATA**

TOXIC SOLID, INORGANIC, N.O.S. (potassium dichromate)

14.3 Transport hazard class(es)

• **ADR, IMDG**



• **Class**

6.1 Toxic substances.

• **Label**

6.1

• **IATA**



• **Class**

6.1 Toxic substances.

• **Label**

6.1

14.4 Packing group

• **ADR, IMDG, IATA**

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- **14.5 Environmental hazards:** Environmentally hazardous substance, solid;
Marine Pollutant
- **Marine pollutant:** Yes
- **Special marking (ADR):** Symbol (fish and tree)
- **14.6 Special precautions for user** Symbol (fish and tree)
- **Hazard identification number (Kemler code):** 60 Warning: Toxic substances.
- **Stowage Category** B
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Limited quantities (LQ)** 500 g
- **Transport category** 2
- **Tunnel restriction code** D/E
- **UN "Model Regulation":** UN 3288 TOXIC SOLID, INORGANIC, N.O.S.
(POTASSIUM DICHROMATE), 6.1, II,
ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I -**
- **Seveso category**
H2 ACUTE TOXIC
P8 OXIDISING LIQUIDS AND SOLIDS
E1 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
- **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (UK ANNEX XIV)**
Sunset date: 2017-09-21
- **National regulations:**
- **Information about limitation of use:**
Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
- **Substances of very high concern (SVHC) according to UK REACH**
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.

- **Department issuing SDS:** product safety department
- **Contact:** msds@scharlab.com
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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

Carc. 1B: Carcinogenicity – Category 1B

Repr. 1B: Reproductive toxicity – Category 1B

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

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1