

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 1 of 9

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Potassium dichromate, 250 g

CAS No: 7778-50-9
Index No: 024-002-00-6
EC No: 231-906-6

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet**Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH
Street: Im Forstgarten 1
Place: D-66459 Kirkel
Internet: www.conatex.com

Supplier

Company name: Carbolution Chemicals GmbH
Street: Im Stadtwald, Gebäude A1.2
Place: D-66123 Saarbrücken
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232
e-mail: michael.bauer@carbolution-chemicals.de
Internet: www.carbolution-chemicals.de

1.4. Emergency telephone number: +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, C2 - Carc. Cat. 2, M2 - Muta. Cat. 2, R2 - Repr. Cat. 2, T+ - Very toxic, T - Toxic, C - Corrosive, Xn - Harmful, N - Dangerous for the environment

R phrases:

Contact with combustible material may cause fire.
May cause cancer.
May cause heritable genetic damage.
May impair fertility.
May cause harm to the unborn child.
Very toxic by inhalation.
Toxic if swallowed.
Toxic: danger of serious damage to health by prolonged exposure through inhalation.
Harmful in contact with skin.
Causes burns.
May cause sensitisation by inhalation and skin contact.
Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Oxidising solid: Ox. Sol. 2

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 2 of 9

Carcinogenicity: Carc. 1B
 Germ cell mutagenicity: Muta. 1B
 Reproductive toxicity: Repr. 1B
 Acute toxicity: Acute Tox. 2
 Acute toxicity: Acute Tox. 3
 Specific target organ toxicity - repeated exposure: STOT RE 1
 Acute toxicity: Acute Tox. 4
 Skin corrosion/irritation: Skin Corr. 1B
 Respiratory/skin sensitization: Resp. Sens. 1
 Respiratory/skin sensitization: Skin Sens. 1
 Hazardous to the aquatic environment: Aquatic Acute 1 (M-Factor = 1)
 Hazardous to the aquatic environment: Aquatic Chronic 1 (M-Factor = 1)
 Hazard Statements:
 May intensify fire; oxidiser.
 May cause cancer.
 May cause genetic defects.
 May damage fertility. May damage the unborn child.
 Fatal if inhaled.
 Toxic if swallowed.
 Causes damage to organs through prolonged or repeated exposure.
 Harmful in contact with skin.
 Causes severe skin burns and eye damage.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction.
 Very toxic to aquatic life.
 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label
potassium dichromate

Signal word:

Danger

Pictograms:

GHS03-GHS05-GHS06-GHS08-GHS09



Hazard statements

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.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 3 of 9

P308+P313

IF exposed or concerned: Get medical advice/attention.

P501

Dispose of contents/container to Waste management.

Special labelling of certain mixtures

Restricted to professional users.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:

 $\text{Cr}_2\text{K}_2\text{O}_7$

Molecular weight:

294,18

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
231-906-6	potassium dichromate	100 %
7778-50-9	Carc. Cat. 2, Muta. Cat. 2, Repr. Cat. 2, O - Oxidizing, T+ - Very toxic, T - Toxic, C - Corrosive, Xn - Harmful, N - Dangerous for the environment R8-45-46-60-61-26-25-48/23-21-34-42/43-50-53	
024-002-00-6	Ox. Sol. 2, Carc. 1B, Muta. 1B, Repr. 1B, Acute Tox. 2, Acute Tox. 3, STOT RE 1, Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H350 H340 H360FD H330 H301 H372 ** H312 H314 H334 H317 H400 H410	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Move victim out of danger zone.

After inhalation

Provide fresh air. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

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

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Potential hazards: Stomach perforation. Call a physician immediately.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 4 of 9

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Advice on protection against fire and explosion

Only use the material in places where open light, fire and other flammable sources can be kept away.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Chromium (VI) compounds (as Cr)	-	0.05		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
	Chromium VI	chromium	10 µmol/mol	urine	Post shift

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN):

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 5 of 9

DIN EN 166

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid
 Colour:
 Odour: No data available

pH-Value (at 25 °C):

Test method
4,5 29,4

Changes in the physical state

Melting point: 398 °C
 Initial boiling point and boiling range: No data available
 Sublimation point: No data available
 Softening point: No data available
 Flash point: No data available

Flammability

Solid: No data available
 Gas: No data available
 Lower explosion limits: No data available
 Upper explosion limits: No data available
 Ignition temperature: No data available

Auto-ignition temperature

Solid: No data available
 Gas: No data available
 Vapour pressure: No data available
 Vapour pressure: No data available
 Density: 2,68 g/cm³
 Water solubility: 29,4 g/L
 (at 20 °C)
 Partition coefficient: 5
 Viscosity / dynamic: No data available
 Viscosity / kinematic: No data available
 Flow time: No data available
 Vapour density: No data available
 Evaporation rate: No data available
 Solvent separation test: No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 6 of 9

Solvent content:

No data available

9.2. Other information

Solid content:

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

Very toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
7778-50-9	potassium dichromate				
	oral	ATE	100 mg/kg		
	dermal	ATE	1100 mg/kg		
	inhalative vapour	ATE	0,5 mg/l		
	inhalative (4 h) aerosol	LC50	0,094 mg/l	Ratte	

Irritation and corrosivity

after ingestion: Irritant and corrosive effects. Potential hazards: Stomach perforation.

Sensitising effects

May cause sensitization by inhalation and skin contact.

Severe effects after repeated or prolonged exposure

Danger of serious damage to health by prolonged exposure.

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. May cause heritable genetic damage.

Specific effects in experiment on an animal

No data available

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

Practical experience

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 7 of 9

Observations relevant to classification

No data available

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
7778-50-9	potassium dichromate					
	Acute fish toxicity	LC50	26,13 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 mg/l	0,16 - 0,59	96 h	Chlorella vulgaris	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 8 of 9

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN3086
14.2. UN proper shipping name:	TOXIC SOLID, OXIDIZING, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	I
Hazard label:	6.1+5.1
Classification code:	TO2
Special Provisions:	274
Limited quantity:	0
Transport category:	1
Hazard No:	665
Tunnel restriction code:	C/E

Other applicable information (land transport)

E5

Inland waterways transport (ADN)

14.1. UN number:	UN3086
14.2. UN proper shipping name:	TOXIC SOLID, OXIDIZING, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	I
Hazard label:	6.1+5.1
Classification code:	TO2
Special Provisions:	274 802
Limited quantity:	0

Other applicable information (inland waterways transport)

E5

Marine transport (IMDG)

14.1. UN number:	UN3086
14.2. UN proper shipping name:	TOXIC SOLID, OXIDIZING, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	I
Hazard label:	6.1+5.1
Special Provisions:	274
Limited quantity:	0
EmS:	F-A, S-Q

Other applicable information (marine transport)

E5

Air transport (ICAO)

14.1. UN number:	UN3086
14.2. UN proper shipping name:	TOXIC SOLID, OXIDIZING, N.O.S.
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	I
Hazard label:	6.1+5.1
Special Provisions:	A5
Limited quantity Passenger:	Forbidden

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Potassium dichromate, 250 g

Print date: 15.04.2015

Product code: 9992038

Page 9 of 9

IATA-packing instructions - Passenger:	665
IATA-max. quantity - Passenger:	1 kg
IATA-packing instructions - Cargo:	672
IATA-max. quantity - Cargo:	15 kg

Other applicable information (air transport)

E5
: Forbidden

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Water contaminating class (D): 3 - highly water contaminating

SECTION 16: Other information

Relevant R-phrases (Number and full text)

08	Contact with combustible material may cause fire.
21	Harmful in contact with skin.
25	Toxic if swallowed.
26	Very toxic by inhalation.
34	Causes burns.
42/43	May cause sensitisation by inhalation and skin contact.
45	May cause cancer.
46	May cause heritable genetic damage.
48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
50	Very toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
60	May impair fertility.
61	May cause harm to the unborn child.

Relevant H- and EUH-phrases (Number and full text)

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.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.