



Qualikems

Qualikems Lifesciences Pvt. Ltd.

(Formerly known as Qualikems fine chem Pvt Ltd)

Works : Plot No. 68-69,G.I.D.C Industrial Estate,Nandesari,Vadodara-391340 (Gujarat)

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

Product identifiers

Product name : Potassium Dichromate

CAS-No. : 7778-50-9

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

Details of the supplier of the safety data sheet

Company : Qualikems Lifesciences Pvt Ltd

Works : Plot No. 68.69,G.I.D.C Industrial
Estate, Nandesari, Vadodara-391340
(Gujarat)

Emergency telephone number

Emergency Phone # : +91-265-2841531 (9:00am - 6:30 pm) [Office hours]

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Oxidizing solids (Category 2), H272

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 2), H330

Acute toxicity, Dermal (Category 1), H310

Skin corrosion (Category 1B), H314

Respiratory sensitisation (Category 1), H334

Skin sensitisation (Category 1), H317

Germ cell mutagenicity (Category 1B), H340

Carcinogenicity (Category 1B), H350

Reproductive toxicity (Category 1B), H360FD

Specific target organ toxicity - repeated exposure (Category 1), H372

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

O Oxidising R 8
R45
R60, R61

T+	Very toxic	R46
T	Toxic	R26
C	Corrosive	R25, R48/23
T+	Very toxic	R34
		R27
		R42/43
N	Dangerous for the environment	R50/53

For the full text of the R-phrases mentioned in this Section, see Section 16.

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H310 + H330	Fatal in contact with skin or if inhaled
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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 statement(s)

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284	Wear respiratory protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Supplemental Hazard Statements

none

Restricted to professional users.

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Potassium bichromate

Formula : Cr₂K₂O₇
Molecular weight : 294,18 g/mol
CAS-No. : 7778-50-9
EC-No. : 231-906-6
Index-No. : 024-002-00-6

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration	
Potassium dichromate	Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No.	7778-50-9	Ox. Sol. 2; Acute Tox. 3; Acute Tox. 2; Acute Tox. 1; Skin Corr. 1B; Resp. Sens. 1; Skin Sens. 1; Muta. 1B; Carc. 1B; Repr. 1B; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H272, H301, H314, H317, H334, H340, H350, H360FD, H372, H410, H310 + H330	<= 100 %
EC-No.	231-906-6		
Index-No.	024-002-00-6		

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration	
Potassium dichromate	Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)		
CAS-No.	7778-50-9	O, T+, N, Carc.Cat.2, Repr.Cat.2, Mut.Cat.2, R45 - R46 - R48/23 - R50/53 - R60 - R61 - R 8 - R25 - R26 - R34 - R42/43 - R27	<= 100 %
EC-No.	231-906-6		
Index-No.	024-002-00-6		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media Suitable

extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Potassium oxides, Chromium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition -

No smoking. Keep away from heat and sources of ignition.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Oxidizing hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

a) Appearance	Form: crystalline
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	3,5 - 5,0 at 29,4 g/l at 25 °C
e) Melting point/freezing point	Melting point/range: 398 °C - lit.
f) Initial boiling point and boiling range	No data available
g) Flash point	Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	2,680 g/cm ³
n) Water solubility	ca.29,4 g/l at 20 °C
o) Partition coefficient: n-octanol/water	log Pow: 5
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available

- s) Explosive properties No data available
t) Oxidizing properties The substance or mixture is classified as oxidizing with the category 2.

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Organic materials, Do not store near acids., Powdered metals, Hydrazine

Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 168 mg/kg

LD50 Oral - Rat - female - 90,5 mg/kg

LC50 Inhalation - Rat - female - 4 h - 0,088 mg/l

LD50 Dermal - Rabbit - 14 mg/kg

Remarks: Lungs, Thorax, or Respiration: Acute pulmonary edema. Diarrhoea Prolonged skin contact may cause skin irritation and/or dermatitis.

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

Germ cell mutagenicity

May alter genetic material.

In vivo tests showed mutagenic effects

Carcinogenicity

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 1 - Group 1: Carcinogenic to humans (Potassium dichromate)

Reproductive toxicity

Presumed human reproductive toxicant

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available

Additional Information

RTECS: HX7680000

Ulceration, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

SECTION 12: Ecological information**Toxicity**

Toxicity to fish	LC50 - Lepomis macrochirus - 0,131 mg/l - 96,0 h mortality NOEC - Pimephales promelas (fathead minnow) - 6 mg/l - 7,0 d
Toxicity to daphnia and other aquatic invertebrates	mortality NOEC - Daphnia (water flea) - 0,016 - 0,064 mg/l - 7 d EC50 - Daphnia magna (Water flea) - 0,035 mg/l - 48 h
Toxicity to algae	EC50 - Pseudokirchneriella subcapitata - 0,31 mg/l - 72 h

Persistence and degradability**Bioaccumulative potential**

Bioaccumulation	Oncorhynchus mykiss (rainbow trout) - 180 d - 200 µg/l Bioconcentration factor (BCF): 17,4
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Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**UN number**

ADR/RID: 3086

IMDG: 3086

IATA: 3086

UN proper shipping name

ADR/RID: TOXIC SOLID, OXIDIZING, N.O.S. (Potassium dichromate)

IMDG: TOXIC SOLID, OXIDIZING, N.O.S. (Potassium dichromate)

IATA: Toxic solid, oxidizing, n.o.s. (Potassium dichromate)

Passenger Aircraft: Not permitted for transport

Transport hazard class(es)

ADR/RID: 6.1 (5.1)

IMDG: 6.1 (5.1)

IATA: 6.1 (5.1)

Packaging group

ADR/RID: I

IMDG: I

IATA: I

Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture**Authorisations and/or restrictions on use**

Potassium dichromate CAS-No.: 7778-50-9
 REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
 Carcinogenic (article 57a)
 ED/30/2010

Potassium dichromate CAS-No.: 7778-50-9
 REACH - List of substances subject to authorisation (Annex XIV)
 Carcinogenic (category 1B)
 Sunset Date: 21.09.2017

Potassium dichromate CAS-No.: 7778-50-9
 REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)
 Carcinogens: category 1B
 Restricted to professional users.
 See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Carc.	Carcinogenicity
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H310 + H330	Fatal in contact with skin or if inhaled
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.
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.

Full text of R-phrases referred to under sections 2 and 3

N	Dangerous for the environment
O	Oxidising
T+	Very toxic
R 8	Contact with combustible material may cause fire.
R25	Toxic if swallowed.
R26	Very toxic by inhalation.
R27	Very toxic in contact with skin.
R34	Causes burns.
R42/43	May cause sensitisation by inhalation and skin contact.
R45	May cause cancer.
R46	May cause heritable genetic damage.
R48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60	May impair fertility.
R61	May cause harm to the unborn child.
Repr.Cat.2	Toxic to Reproduction Category 2

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Qualikems Lifesciences Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.qualikems.com for additional terms and conditions of sale.