

Version: v1
Revision Date: 2023-07-18
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SAFETY DATA SHEET

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

1.1 Product identifiers

Product name : Potassium dichromate
Product Number : P112163
Brand : aladdin
CAS-No. : 7778-50-9

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

Identified uses : Laboratory chemicals,Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co.,Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 2), H272
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 4), H312
Skin corrosion (Sub-category 1B), H314
Serious eye damage (Category 1), H318
Respiratory sensitization (Category 1), H334
Skin sensitization (Category 1), H317
Germ cell mutagenicity (Category 1B), H340
Carcinogenicity (Category 1B), H350

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Reproductive toxicity (Category 1B), H360FD

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Specific target organ toxicity - repeated exposure, Inhalation (Category 1), Cardio-vascular system, H372

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram	Signal word	Hazard statement(s)
		
	Danger	
H272		May intensify fire; oxidizer
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
H360		May damage fertility or 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 surface, sparks, open flames and other ignition sources. - No smoking.
P202		Do not handle until all safety precautions have been read and understood.
P220		Keep away from clothing and other combustible materials.
P221		Take any precaution to avoid mixing with combustibles/...
P260		Do not breathe dust/fume/gas/mist/vapors/spray.
P264		Wash hands [and ...] thoroughly after handling.
P270		Do not eat, drink or smoke when using this product.
P271		Use only outdoors or in a well-ventilated area.
P272		Contaminated work clothing should not be allowed out of the workplace.
P273		Avoid release to the environment.
P280		Wear protective gloves/protective clothing/eye protection/face protection.
P284		[In case of inadequate ventilation] Wear respiratory protection.
P310		Immediately call a POISON CENTER or doctor/physician.
P333		If skin irritation or rash occurs:

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P391	Collect spillage.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Potassium bichromate
Formula	: K ₂ Cr ₂ O ₇
Molecular weight	: 294.18
CAS No.	: 7778-50-9
EC-NO.	: no data available

Component	Classification	Concentration
Potassium dichromate		
	no data available	Analytical Reagent, 99.8%

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or

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Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

no data available

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

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

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Potassium oxides Chromium oxides Not combustible. Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

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For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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 fullface 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

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Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Powder,Solid,Crystals and/or Chunks color: Orange to Red
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	398°C
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
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	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion with: Iron magnesium hydrazine and derivatives hydroxylamine ammonium nitrate Boron Acetic anhydride oxidisable substances Reducing agents sulfuric acid silicon Exothermic reaction with: anhydrides phosphides Sulfides nitrides Fluorine Risk of ignition or formation of inflammable gases or vapours with: organic combustible substances glycerol Powdered metals hydrides alkali compounds Acetone with sulfuric acid Generates dangerous gases or fumes in contact with: hydrochloric acid

10.4 Conditions to avoid

no data available

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10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

(OECD Test Guideline 401)

LC50 Inhalation - Rat - female - 4 h - 0,083 mg/l

(OECD Test Guideline 403)

Acute toxicity estimate Dermal - Expert judgment - 1.100 mg/kg

Skin corrosion/irritation

Skin - Rabbit Result: Causes burns. - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Patch test: - Human Result: positive Remarks: (IUCLID)

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

no data available

Reproductive toxicity

May damage the unborn child. May damage fertility.

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. - Cardiovascular system

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Danio rerio (zebra fish) - 58,5 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0,035 mg/l - 48 h

Remarks: (ECHA)

Toxicity to algae static test ErC50 - Selenastrum capricornutum (green algae) - 0,233 mg/l - 72 h

Remarks: (ECHA)

Toxicity to bacteria IC50 - activated sludge - 30 mg/l - 3 h

Remarks: (in analogy to similar products) (ECHA)

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

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

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

SECTION 13:

13.1 Disposal considerations

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information

DOT (US)

UN number: 3086 Packing group: II Class: 6.1 (5.1)
Proper shipping name: TOXIC SOLID, Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data
OXIDIZING, N.O.S. (potassium dichromate)
Environmental Hazards: no

IMDG

UN number: 3086 Packing group: II EMS-No: no data available
Proper shipping name: TOXIC SOLID, OXIDIZING, N.O.S. (potassium dichromate)

IATA

UN number: 3086 Packing group: II Class: 6.1 (5.1)
Proper shipping name: TOXIC SOLID, OXIDIZING, N.O.S. (potassium dichromate)

SECTION 15: Regulatory information

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

SECTION 16: Other information

Further information

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