



Safety Data Sheet

Barium Chromate

Version: 1.0
Revision date:
09/28/2015
Supersedes:
03/01/2013

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifiers

Product Form: crystalline
Substance Name: Barium Chromate
CAS No.: 10294-40-3
Product Code: UIC, Inc. Catalog Number CM300-011

1.2. Intended Use of the Product

Use of the substance/mixture: Laboratory chemicals, Manufacture of substances, Combustion tubes
Name, Address, and Telephone of the Responsible Party

UIC Inc
1225 Channahon Rd
Joliet, IL 60436
Phone: (815) 744-4477
Fax: (815) 744-1561

Emergency Telephone Number

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call emergency number: 1-815-474-8753

2. Hazards Identification of the product

2.1. Classification of the substance or mixture

Oxidizing solids (Category 2), H272
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Carcinogenicity (Category 1A), H350

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

2.2. GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H272 May intensify fire; oxidiser.
H302 + H332 Harmful if swallowed or if inhaled
H350 May cause cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat.
P220 Keep/Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
 Rinse mouth.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a
 POISON CENTER or doctor/ physician if you feel unwell.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
 P405 Store locked up.
 P501 Dispose of contents/ container to an approved waste disposal plant.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS – none

3. Composition/information on ingredients

3.1. Substances

Chemical name: Barium Chromate
 Formula: BaCrO₄
 Molecular weight: 253.32 g/mol
 CAS-No.: 10294-40-3
 EC-No.: 233-660-5
 Index-No. : 056-002-00-7

Hazardous components

Component	Classification	Concentration
Barium Chromate	Ox. Sol. 2; Acute Tox. 4; Carc. 1A; H272, H302 + H332, H350	<= 100 %

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

4. First Aid Measures

4.1. Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Fire Fighting Measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Barium oxide, Chromium oxides

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.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains.

6.3. 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.

6.4. Reference to other sections

For disposal see section 13.

7. Handling and Storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. 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.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

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

8. Exposure Controls and Personal Protection

8.1. Control Parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis	
Barium Chromate	10294-40-3	TWA	0.500000 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	
	Remarks	See Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in § 1910.1026 is stayed or is otherwise not in effect Substance listed; for more information see OSHA document 1910.1026			
		TWA	0.500000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)	
		Eye, skin, & Gastrointestinal irritation Muscular stimulation Not classifiable as a human carcinogen			
		TWA	0.500000 mg/m ³	USA. NIOSH Recommended Exposure Limits	
		TWA	1.000000 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	
		CEIL	1.000000 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-2	
		Z37.7-1971 This standard applies to any operations or sectors for which the exposure limit in the Chromium (VI) standard, Sec. 1910.1026, is stayed or is otherwise not in effect.			
		PEL	0.005000 mg/m ³	OSHA Specifically Regulated Chemicals/Carcinogens	
		1910.1026 This standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except: (a) Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or another Federal government agency (e.g., the treatment of wood with preservatives); (b) Exposures to portland cement; or (c) Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving			

		chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 µg/m ³ as an 8-hour time-weighted average (TWA) under any expected conditions of use. Chromium (VI) [hexavalent chromium or Cr(VI)] means chromium with a valence of positive six, in any form and in any compound OSHA specifically regulated carcinogen
PEL	0.005000 mg/m ³	OSHA Specifically Regulated Chemicals/Carcinogens
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TWA	0.000200 mg/m ³	USA. NIOSH Recommended Exposure Limits
Potential Occupational Carcinogen See Appendix C See Appendix A		

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

Safety glasses with side-shields conforming to EN166 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril ® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril ® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

Do not let product enter drains.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: powder or granules
b) Color	Yellow
c) Odor	Odorless
d) Odor Threshold	No data available
e) pH	No data available
f) Melting point/freezing point	Melting point/range: 210 °C (410 °F)
g) Initial boiling point and boiling range	No data available
h) Flash point	Not applicable
i) Evaporation rate	No data available
j) Flammability (solid, gas)	No data available
k) Upper/lower flammability or explosive limits	No data available
l) Vapor pressure	No data available
m) Vapor density	No data available
n) Relative density	4.5 g/mL at 25 °C (77 °F)
o) Water solubility	0.34 g/l at 20 °C (68 °F) - insoluble
p) Partition coefficient: n-octanol/water	No data available
q) Auto-ignition temperature	No data available
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Specific gravity	4.5
u) Explosive properties	No data available
v) Oxidizing properties	The substance or mixture is classified as oxidizing with the category 2.

9.2 Other safety information

No data available

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

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Reducing agents, mineral acids, hydrofluoric acid, hydrazine, hydroxylamine, and acetone. Flammable, oxidizable, or organic materials.

10.6 Hazardous decomposition products

Other decomposition products - Toxic or hazardous gases including sulfur oxide and chromium trioxide.
In the event of fire: see section 5

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Hamster

Ovary

Sister chromatid exchange

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Barium chromate)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: OSHA specifically regulated carcinogen (Barium chromate)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

Dermatitis, Nausea, Vomiting, Dizziness, Convulsions, Muscle cramps/spasms., Irregular breathing, Pulmonary edema. Effects may be delayed. Exposure to chromate salts has been reported to produce skin and nasal ulcerations with continued exposure leading to perforation of the nasal septa.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

12. Ecological Information

12.1 Toxicity

No data available

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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

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. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. Transport Information

DOT (US)

UN number: 1479 Class: 5.1 Packing group: II

Proper shipping name: Oxidizing solid, n.o.s. (Barium chromate)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG

UN number: 1479 Class: 5.1 Packing group: II EMS-No: F-A, S-Q

Proper shipping name: OXIDIZING SOLID, N.O.S. (Barium chromate)

Marine pollutant: yes

IATA

UN number: 1479 Class: 5.1 Packing group: II

Proper shipping name: Oxidizing solid, n.o.s. (Barium chromate)

15. Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Barium chromate	10294-40-3	1993-04-24

Massachusetts Right to Know Components

	CAS-No.	Revision Date
Barium chromate	10294-40-3	1993-04-24

Pennsylvania Right to Know Components

	CAS-No.	Revision Date
Barium chromate	10294-40-3	1993-04-24

New Jersey Right to Know Components

	CAS-No.	Revision Date
Barium chromate	10294-40-3	1993-04-24

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

	CAS-No.	Revision Date
Barium chromate	10294-40-3	2008-12-19

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

	CAS-No.	Revision Date
Barium chromate	10294-40-3	2008-12-19

16. Other Information

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity
Carc. Carcinogenicity
H272 May intensify fire; oxidizer
H302 Harmful if swallowed
H302 + H332 Harmful if swallowed or if inhaled
H332 Harmful if inhaled
H350 May cause cancer.
Ox. Sol. Oxidizing solids

HMIS Rating

Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical Hazard: 2

NFPA Rating

Health hazard: 2
Fire Hazard: 0
Reactivity Hazard: 2
Special hazard. I: OX

Further information

UIC, Inc. has obtained the most current chemical information available to us in updating this Safety Data Sheet. However, users should always use caution when working with chemicals, as UIC, Inc. assumes no liability resulting from its use. Additionally, we make no warranty with respect to any information published on this sheet, either stated or implied.

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