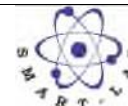


MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

Revision : 00

Date: March 8th, 2020

MSDS Number : 0256

Section 1 - Chemical Product and Company Identification

- 1.1 Product Name** : **BARIUM CHROMATE**
Synonyms : Barium tetraoxochromate (VI)
CAS No. : 10294-40-3
HS Code : 2841 50 90
Molecular Weight : 253.32 g/mol
Chemical Formula : BaCrO₄
Product Code : A-2319, A-2320
Brand : SMART-LAB
- 1.2 Manufacturer** : **PT.Smart-Lab Indonesia**
Address : Ruko Boulevard TamanTekno Blok E No.10 -11BSD SektorXI
 Serpong, Tangerang - Indonesia
Website : www.smartlabid.com
Email : sales@smartlabid.com
For information : Telp: +62-21- 7588 0205(Hunting) , fax:+62-21-7588 0198
- 1.3 Application** : General Chemical reagent
Emergency Telephone: +62-21-7588 0205(Hunting)

Section 2 - Hazards Identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008
 Oxidizing solids (Category 2), H272
 Acute toxicity, Inhalation (Category 4), H332
 Acute toxicity, Oral (Category 4), H302

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

- 2.2 Label elements**
 Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word
 Hazard statement(s)
 H272
 H302 + H332

Danger
 May intensify fire; oxidizer.
 Harmful if swallowed or if inhaled.

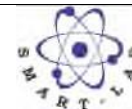
Precautionary statement(s)
 P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep/Store away from clothing/ combustible materials.
 Take any precaution to avoid mixing with combustibles.
 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. P370 + P378 In case of fire: Use dry powder or dry sand to extinguish.

P220
 P221
 P261
 P301 + P312 + P330

Supplemental Hazard Statements

none

MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

Revision : 00

Date: March 8th, 2020

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2.3 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 : Barium tetraoxochromate (VI)
 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 ingredients according to Regulation (EC) No 1272/2008

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

Component	Classification	Concentration
Barium chromate CAS-No. . 10294-40-3 EC-No. No233-660-5 Index- 056-002-00-7	Ox. Sol. 2; Acute Tox. 4; H272, H332, H302	<=100 %

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

Section 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.

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

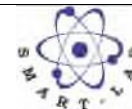
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

Revision : 00

Date: March 8th, 2020

MSDS Number : 0256

Section 5 - Firefighting Measures

5.1 Extinguishing media**Suitable 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.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. 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.

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.

Section 7 - Handling and Storage

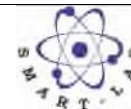
7.1 Precautions for safe handlingAvoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition
- No smoking. Keep away from heat and sources of ignition. For precautions see section 2.2**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Oxidizing Solids

7.3 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

MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

Revision : 00

Date: March 8th, 2020

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8.1 Control parameters**8.2 Exposure controls****Appropriat 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber
 Minimum layer thickness: 0.11 mm
 Break through time: 480 min
 Material tested: Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber
 Minimum layer thickness: 0.11 mm
 Break through time: 480 min
 Material tested: Dermatril® (KCL 740, Size M)

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 (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

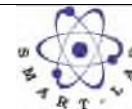
Control of environmental exposure

Do not let product enter drains.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Form: powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	Melting point/range: 210 °C - dec.
Initial boiling point and boiling range	No data available

MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

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Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1.4 mmHg
Vapour density	No data available
Relative density	4.5 g/mL at 25 °C
Water solubility	0.34 g/l at 20 °C - insoluble
Partition coefficient: octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 2.

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

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Reducing agents, Hydrazine, Mineral acids

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Barium oxide, Chromium oxides 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**

No data available Barium chromate

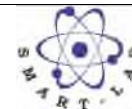
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Skin corrosion/irritation

No data available (Barium chromate)

Serious eye damage/eye irritation

No data available (Barium chromate)

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Respiratory or skin sensitisation

No data available(Barium chromate)

Germ cell mutagenicity

Hamster(Barium chromate) ovary Sister chromatid exchange

Carcinogenicity

No data available(Barium chromate)

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

Reproductive toxicity

No data available(Barium chromate)

Specific target organ toxicity - single exposure

No data available(Barium chromate)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Barium chromate)

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 ulc of the nasal septa.(Barium chromate)

Section 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

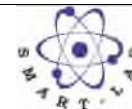
12.5 Results of PBT and vPvB assessment

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.

12.6 Other adverse effects

No data available

Section 13 - Disposal Considerations

MATERIAL SAFETY DATA SHEET**BARIUM CHROMATE**

Revision : 00

Date: March 8th, 2020

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13.1 Waste treatment methods**Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 - Transport Information

14.1 UN number

ADR/RID: 1479

IMDG: 1479

IATA: 1479

14.2 UN proper shipping name

ADR/RID: OXIDIZING SOLID, N.O.S. (Barium chromate)

IMDG: OXIDIZING SOLID, N.O.S. (Barium chromate)

IATA: Oxidizing Solid, N.O.S (Barium chromate)

14.3 Transport hazard class(es)

ADR/RID: 5.1

IMDG: 5.1

IATA: 5.1

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

Section 15 - Regulatory Information

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

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16 - Additional Information

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

H272 May intensify fire; oxidizer.
 H302 Harmful if swallowed.
 H302 + H332 Harmful if swallowed or if inhaled
 H332 Harmful if inhaled.

National Fire Protection Association (U.S.A.):

Health: 2

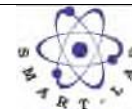
Flammability: 0

Reactivity: 0

Revision history :

Date	Rev	Description
Mar 8, 2020	00	-

<u>MATERIAL SAFETY DATA SHEET</u>		
BARIUM CHROMATE		
Revision : 00	Date: March 8th, 2020	MSDS Number : 0256

**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. PT. Smartlab Indonesia Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.