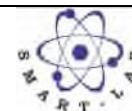


MATERIAL SAFETY DATA SHEET

According to regulation (EU) no.1907/2006

**BARIUM SULPHATE**

Revision : 01

Date: July 19th, 2022

MSDS Number : 038

Section 1 - Chemical Product and Company Identification

- 1.1 Product Name** : **BARIUM SULPHATE**
Synonyms : Baryte
CAS No. : 7727-43-7
HS Code : 2833 27 00
Chemical Formula : BaSO₄
Molecular Weight : 233.39 g/mol
Product Code : A-2112
Brand : SMART-LAB
- 1.2 Manufacturer** : **PT.Smart-Lab Indonesia**
Address : Ruko Boulevard Taman Tekno Blok E No. 9-11, BSD Serpong, Tangerang - Indonesia
Website : www.smartlabid.com
Email : sales@smartlabid.com
For information : Telp: +62 21- 7588 0205(Hunting), fax: +62-21-7588 0198
Emergency Telephone: +62-21-7588 0205(Hunting)
- 1.3 Application** : General Chemical reagent

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

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

2.2 Label elements

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

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 SULPHATE
Formula : BaSO₄
Molecular weight : 233.39 g/mol
CAS-No. : 7727-43-7
EC-No. : 231-784-4
Index-No. : -

3.2 Mixture

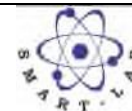
No components need to be disclosed according to the applicable regulations.

Section 4 - First Aid Measures

4.1 Description of first aid measures**If inhaled**

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

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**BARIUM SULPHATE**

Revision : 01

Date: July 19th, 2022

MSDS Number : 038

In case of skin contact

Wash off with soap and plenty of water

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.

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

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

Sulphur oxides, Barium oxide

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. 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 handling**Advice on protection against fire and explosion**

Provide appropriate exhaust ventilation at places where dust is formed.

MATERIAL SAFETY DATA SHEET		
According to regulation (EU) no.1907/2006		
		
BARIUM SULPHATE		
Revision : 01	Date: July 19 th , 2022	MSDS Number : 038

Hygiene measures

General industrial hygiene practice. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

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

Storage class

Storage class (TRGS 510): 13: Non Combustible 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

8.1 Control parameters**8.2 Exposure controls****Appropriate engineering controls**

General industrial hygiene practice.

Personal protective equipment**Eye/face protection**

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.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance level (EN 143) dust masks. 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.

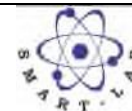
Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance

Form: powder

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**BARIUM SULPHATE**

Revision : 01

Date: July 19th, 2022

MSDS Number : 038

Odour	White
Odour Threshold	No data available
pH	7
Melting point/freezingpoint	Melting point/range: 1,580 °C
Initial boiling point and boiling range	1,600 °C at 1013 hPa
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	No data available
Vapour density	No data available
Relative density	4,400 g/cm ³ at 20 °C
Density	No data available
Water solubility	insoluble
Partition coefficient: noctanol/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	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

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Aluminum, Phosphorus

10.6 Hazardous decomposition products

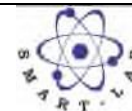
Other decomposition products - No data available Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Barium oxide In the event of fire: see section 5

Section 11 - Toxicological Information

11.1 Information on toxicological effects**Acute toxicity**

LD50 Oral - Rat - male - 307.000 mg/kg (OECD Test Guideline 401)

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**BARIUM SULPHATE**

Revision : 01

Date: July 19th, 2022

MSDS Number : 038

Inhalation: No data available Dermal: No data available

Skin corrosion/irritation

Skin - In vitro study

Result: negative (OECD Test Guideline 439)

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse

Result: negative (OECD Test Guideline 429)

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate

Test Type: In vitro mammalian cell gene mutation test

Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrat

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available (Barium sulfate)

Specific target organ toxicity - single exposure

No data available (Barium sulfate)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

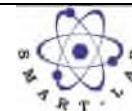
No data available (Barium sulfate)

Additional Information

RTECS: CR0600000

Prolonged inhalation of dust may cause baritosis, a benign pneumoconiosis. If ingested, the presence of soluble barium salts as impurities may cause toxic reactions due to bioaccumulation., Damage to the

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**BARIUM SULPHATE**

Revision : 01

Date: July 19th, 2022

MSDS Number : 038

lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Since the substance is poorly absorbed, no hazardous properties are to be anticipated. Inhalation of the dusts should be avoided as even inert dusts may impair respiratory organ functions. Handle in accordance with good industrial hygiene and safety practice.

Section 12 - Ecological Information

12.1 Toxicity**Toxicity to fish**

static test LC50 - Danio rerio (zebra fish) - > 174 mg/l - 96 h (OECD Test Guideline 203)

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate (barium sulphate) static test NOEC - Pseudokirchneriella subcapitata (green algae) - >= 100 mg/l - 72 h (OECD Test Guideline 201)

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate (barium sulphate)

Toxicity to bacteria

Remarks: The value is given in analogy to the following substances: Barium chloride dihydrate (barium sulphate)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available (Barium sulfate)

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 ecological problems are to be expected when the product is handled and used with due care and attention.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

