BRIMSTONE
Sulphur provider company

Safety Data Sheet

According To Regulation (EC) No 1907/2006 (REACH), (EC) No. 1272/2008 (CLP)

SULFUR BENTONITE

Version:	1.0	Prep Date:	17.02.2020
Form No:	094006	Rev. Date:	17.02.2020

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier	
Name of Product	SULFUR BENTONITE
SDS[1] Form No	094006
Product Description	Mixture
1.2 Relevant Identified Uses Of The Product And Uses Advised Against	
Relevant Identified Uses	Industrial and Laboratory application
Uses Advised Against	There are no uses advised against.
1.3 Details Of The Supplier The Safety Data Sheet	
Manufacturer/ Supplier	BRIMSTONE KİMYA SANAYİ TİCARET ANONİM ŞİRKETİ
Address	FATİH MAH. MAREŞAL FEVZİ ÇAKMAK CAD. 39 /10 1 MENEMEN/ İZMİR
Telephone	+90 232 507 72 72
Fax	+90 232 507 78 78
E-mail Address of Competent Person Responsible for the SDS	emn@brimco.co
1.4 Emergency Telephone Number	
Company Emergency	+90 232 507 72 72

2. HAZARDS IDENTIFICATION

2.1 Classification Of The Product

2.1.1 Classification According to Regulation (EC) No 1272/2008

- This product is classified as hazardous according to regulation (EC) 1272/2008 [CLP/GHS].
- Skin Irrit. 2; H315

2.2 Label elements

2.2.1. Labeling According to Regulation (EC) No 1272/2008 [CLP[2]/GHS[3]]

Product Identifier

Hazard Component for Labeling

- Sulfur

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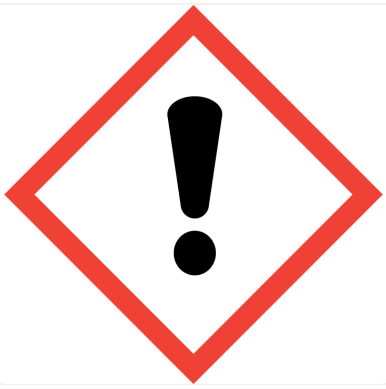
Hazard Pictograms

· GHS07



Signal Word

· WARNING

Hazard Statements

H315 Causes skin irritation

Precautionary Statements

General

-

Prevention

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 IF ON SKIN: Wash with plenty of water and soap

P321 Specific treatment (see advice on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention

P362 Take off contaminated clothing.

Storage

-

Disposal

-

Supplemental Hazard Information (EU) Statements

No data available.

2.2.2. Special Rules For Supplemental Label Elements For Certain Mixtures

· None.

2.2.3. Additional Labeling

· Not Applicable

2.3 Other Hazards

Substance does not meet the criteria for PBT/ vPvB according to Regulation (EC) No. 1907/2006, Annex XIII: None

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description Of The Product

· Mixture

CAS[4] No	EC[5] No	Name	Conc. %	Classification according to Regulation (EC) No 1278/2008 (CLP)
7704-34-9	231-722-6	Sulfur	90.0	Skin Irrit. 2; H315
1302-78-9	215-108-5	Bentonite Clay	10.0	Not classified as hazardous

3.2 Additional information

Specific Concentration limits: None
M-Factor: None
Notes: None

4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 General notes

· When in doubt or if symptoms are observed, get medical advice.

4.1.2 Following inhalation

· If inhaled, remove to fresh air. If not breathing, give artificial respiration.
· In case of dyspnea give oxygen.
· If unconscious, place in recovery position and get medical attention immediately.
· Get medical attention.

4.1.3 Following skin contact

· Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available.
· Get medical attention if irritation persists.

4.1.4 Following eye contact

· Check for and remove any contact lenses.
· Rinse out with water for at least 15 minutes with the eyelid held wide open.
· Do not rub your eye.
· Get medical attention if irritation persists.

4.1.5 Following ingestion

· Wash out mouth with water.
· Do not induce vomiting unless directed to do so by medical personnel.
· Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.
· Maintain an open airway.

- Get medical attention.

4.1.6 Self-protection of the first aider

- First aid assistant: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

- Potential acute health effects

Eye contact: It may cause eye irritation.
Inhalation: No data available
Skin contact: It may be irritate on skin.
Ingestion: No data available

4.3. Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media

- Use an extinguishing agent suitable for the surrounding fire.
- Incipient fires in sulfur storage piles can be frequently smothered by gently shoveling more sulfur, sand, or fine earth on them to exclude all air.
- Steam or inert gases (such as carbon dioxide) are excellent extinguishers for use in containers that can be closed tightly. Care should be taken that the sulfur dust is not scattered into the air.
- For larger fires, water applied as a fine mist is the most useful agent.
- For SMALL FIRES: Dry chemical, CO_2, water spray or foam.
- For LARGE FIRES: Water-spray, fog or foam.

Unsuitable extinguishing media

- High pressure water sprays disperse the dust into the air and should NOT be used. Coarser water sprays are permissible on deposits containing only a small proportion of extreme sulfur fines.

5.2 Special hazards arising from the product.

- There could be toxic gases occur in the event of fire.
- If a container is closed tightly and the volume of oxygen enclosed is not too large, a fire will be put out by the sulfur dioxide formed. Sulfur dioxide is a toxic gas.
- Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.3 Advice for fire-fighters

- Wear full chemical protective clothing. In case of fire: Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergeny personnel

- Avoid dust formation.
- Avoid breathing dust.
- No action shall be taken involving any personal risk or without suitable training.
- Keep unnecessary and unprotected personnel from entering.
- Do not touch or walk through spilled material.
- Evacuate the accident area.
- Refer to protective measures listed in section 7 and 8.
- Wear appropriate personal protective equipment as described in section 8.

6.1.2. For emergency responders

- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
- See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- Do not empty into drains and sewers.
- Keep from entering to water and ground water systems.
- Spillages or uncontrolled discharges into watercourses must be alerted to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment

- Control personal contact by using protective equipment as required
- Take up contaminated material and pass on for further processing.
- Contain for disposal according to local / national regulations.
- Major spills
- Sulfur dusts form an explosive mixture with air which may be ignited by static electricity.
- Explosion may be avoided by preventing atmospheres becoming dust-laden by adequate ventilation or by hose-down instead of sweeping.
- If mixture with incompatible materials is likely, evacuate personnel to a safe distance.
- Keep product moist to suppress both fire and dust potential.
- Recover material without delay using non-sparking hand tools.

6.3.2 For cleaning up

- Move containers from spill area.
- Avoid dust generation.
- Pick up mechanically and transfer to properly labelled containers.
- Place spilled material in a designated, labeled waste container.
- Dispose of via a licensed waste disposal contractor.
- Control personal contact by using protective equipment.

6.3.3 Other information

- Dispose of waste material according to local, state and federal regulations.

6.4 Reference to other sections

- See Section 1 for emergency contact information.
- See Section 8 for information on appropriate personal protective equipment.
- See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures

Personal preventions

- Molten sulfur should be maintained at temperatures between 115 deg. minimum, to prevent accumulation of sol id sulfur, and 145 deg.
- maximum, to prevent sulfur fires inside tank.
- Dedicated heated and vented tanks are required.
- Molten sulfur must not be loaded into containers that contain hydrocarbons or moisture.
- Taking precautions to prevent sparking when tank covers are released.
- Open slowly and allow tanks to vent accumulated highly flammable hydrogen sulfide gas if present avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid smoking, naked lights or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Avoid contact with incompatible materials.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Working clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
- Ensure that the occupational exposure limit value/s (OEL) and/or other limit value s are complied with.

7.1.2 Measures to Prevent Fire

- See section 5.

7.1.3 Measures to Protect Environment

- Dispose of waste material according to local, state and federal regulations.

7.1.4 Advice on general occupational hygiene

- Use good occupational work practice.
- Comply with the health and safety at work laws.
- Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

- Store in accordance with local regulations.
- Store away from ignition sources, food and drink.
- Keep container tightly closed.
- Store in original containers.
- Store in a cool, dry, well-ventilated area.
- Avoid contact with incompatible materials
- Avoid physical damage to containers.
- Please give the priority usage for damaged packaged.
- Do not store in unlabeled containers.
- Keep/Store only in original container.

STORAGE INCOMPATIBILITY

- None

Advice on common storage

- See also instructions on the label.
- Store in a cool, dry, well-ventilated area.
- Keep away from food, drink and animal feeding stuffs.
- Store away from incompatible materials and foodstuff containers.

7.3 Specific precautions on storage

- No data available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Preventive industrial and medical examinations must be carried out according to the application area. Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

8.1.1 Occupational exposure limits

No data available

8.2 Exposure controls

Adequate ventilation should be used during processing.
Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

8.2.1 Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
Ensure that eyewash stations and safety showers are proximal to the work-station location.
Keep away from food, drink and animal feeding stuffs.
Use personal protective equipment according to EN[6] standards.
See Section 7

8.2.2 Individual protection measures, such as personal protective equipment

8.2.2.1 Eye / Face protection:

Safety glasses with side shields.
Chemical goggles.
Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.
Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.
In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

8.2.2.2 Skin protection

Hand protection

- Use protective impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).
- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
- Contaminated gloves should be replaced.

Body protection

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Other protection

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

8.2.2.3 Respiratory protection

- Use a respiratory protective device with particle filter/dust mask CEN with an approved standard if a risk assessment indicates this is necessary.

- Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

8.2.3 Environmental exposure controls

- Legislation for the protection of the environment must be met in full.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form/Physical state	Solid
Color	Light Yellow
Odor	Slight sulphur odor
pH	Neutral when dry
Melting Point (°F)	246
Flash point (°F)	Dust clouds 370 °F, Non-dispersed dust 428 °F
Boiling point (°F)	832
Flammable properties	No data available
Oxidising Properties	No data available
Explosive properties	No data available
Explosion limits, Upper/Lower (g/cm^3 dust)	No data available
Vapor pressure, kPa (184 °C)	No data available
Vapor density, (15-20 °C & 59-68 °F, Air: 1)	No data available
Autoignition point (°C)	No data available
Boiling Point (°C)	No data available

Relative Density (Water:1)	No data available
Molecular weight (g/mol)	No data available
Water Solubility	İnsoluble
Specific Gravity	> 1
Bulk Density (kg/m^3)	No data available
Volatile component	No data available
Water adsorbtion	No data available

9.2 Other Information

Other physical and chemical parameters

10. STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability

- Stable under recommended storage and handling conditions. (See section 7.)

10.3 Possibility of hazardous reactions

- Stable under recommended storage and handling conditions. (See section 7.)

10.4 Conditions to avoid:

- Contact with incompatible materials. Prevent dust clouds.

10.5 Incompatible materials:

- Alkaline materials, mixtures with chlorates, oxidizing agents and nitrates.

10.6 Hazardous decomposition products:

- None

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Based on our experience and the information available, adverse health effects are expected if not handled as recommended with suitable precautions for designated uses.
The product has not been tested in animal experiments.
The toxicological data has been taken from products of similar composition.

11.2 Acute toxicity

Sulfur CAS No: 7704-34-9

- LD50 (Dermal, tavşan): > 2000 mg/kg

11.3 Skin corrosion/irritation and Eye damage/irritation:

- Skin corrosion/irritation; Liquid may irritate the skin.
- Eye damage/irritation; Liquid may irritate the eye.

11.4 CMR effects (Carcinogenity) :

- The product does not have carcinogenic effect.

11.5 CMR effects (Mutagenicity and Toxicity for reproduction) :

The product is not mutagenic or toxic for reproduction.

11.6 Other Toxicological Effects:

Allergic Effects	No data available
Effects on Repeated Doses Chronic Exposures	Precautions should be taken to minimize exposure.
Sensitization	Not sensitizing
Developmental Toxicity (Teratogenicity)	No data available
Fertility	No data available

11.7 STOT-single/repeated exposures:

STOT-single exposure	The substance is not classified as a specific target organ toxicant.
STOT-repeated exposure	The substance is not classified as a specific target organ toxicant.

11.8 Symptoms related to the physical, chemical and toxicological characteristics:

In case of inhalation	It can be harmful in case of inhalation
In case of skin contact	It irritates on skin.
In case of eye contact	It irritates on eyes.
In case of ingestion	No data available

11.9 Additional Toxicological Information:

- Toxicological classifications are based on available knowledge and information
- The special effects to health are considered by taking into account the information in section 3.
- Chronic effects: There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals. Sensitive persons can experience skin irritation from repeated exposure to the sulfur dust. Allergic responses can occur. Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Sulfur CAS No: 7704-34-9
LC_{50} (Rainbow trout): > 180 mg/l (96 h)
Bentonite Clay CAS No: 1302-78-9
LC_{50} (Rainbow trout): 19,000 mg/l (96 h)

12.2 Persistence and degradability

Abiotic Degradation: No data available
Physical- and Photo-chemical elimination: No data available
Biodegradation: Not biodegradable. No data available
The solid matter content can be seperated mechanically in a sewage plant.

12.3 Bioaccumulative potential

Partition coefficient n-octanol /water (log Kow): No data available
Bioconcentration factor (BCF): No data available

12.4 Mobility in Soil

Solid
Solubility in water: No data available
Known or predicted distribution to environmental compartments: Surface tension: No data available
Adsorption/Desorption: No data available

12.5 Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 product is not fulfilling PBT (persistent/bioaccumulative/toxic)/vPvB (very persistent/very bioaccummulative) criteria

12.6 Other adverse effects

See the sections 6, 7, 13, 14 and 15.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

13.1.1 Product / Packaging disposal

- The generation of waste should be avoided or minimized wherever possible.
- Can be landfilled or incinerated.
- Note that properties of a material may change in use, and recycling or reuse may not always be appropriate
- When recycling of the product is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended.
- Disposal according to local authority regulations.
- According to the European Waste Catalogue, waste codes are not product specific, but application specific. Waste codes should be assigned by the user.
- Contaminated packaging can be re-used after emptying and cleaning.

13.1.2 Waste Treatment-Relevant Information

- When in compliance with the Environmental Protection (Duty of Care) Regulations.

13.1.3 Sewage Disposal-Relevant Information

- None

13.1.4 Other Disposal Recommendations

- Dispose of chemicals waste or in accordance with local regulations.
- Follow all applicable local laws, rules and regulations regarding the proper disposal of this material.
- If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine proper method for disposal.

- Dispose of waste according to applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

	ADR[7]/RID[8]	ADNR[9]	IMDG[10]	ICAO[11]/IATA[12]
TRANSPORTATION	Road	River	Marine	Airways
14.1 UN No.	-	-	-	-
14.2 Un Proper Shipping Name	The product is not hazardous for transportation			
Symbols	-	-	-	-
HIN No	-	-	-	-
Tunnel Restriction Code	-	-	-	-
Classification code	-	-	-	-
EMS	-	-	-	-
LQ	-	-	-	-
14.3 Transport Hazard Class	-	-	-	-
14.4. Packaging Group	-	-	-	-
14.5 Environmental Hazards	-	-	-	-
14.6 Specical Precautions For Users	Not Available			
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	Not Available			

15. REGULATORY INFORMATION

15.1 Safety, Health And Environmental Regulations / Legislation Specific For The Substance or Mixture

No data available

15.1.1 HAZARD

CLP classification according to Annex VI of CLP (Regulation (EC) No 1272/2008)

INTERNATIONAL REGULATIONS

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 (REACH) and ISO 11014:2009.
This product is classified according to EU Directive GHS/CLP.
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2015)

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for this substance/ mixture by the supplier.

16. OTHER INFORMATION

16.1 Other information

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- For additional information regarding products please contact the BRIMSTONE KİMYA SANAYİ TİCARET ANONİM ŞİRKETİ
- The above information complies with the 1907/2006 Directives and their amendments.

16.2 Related Person

- AYANSAN CHEMICAL CONSULTANCY PLASTIC INC. AND TRD. LTD. CO.
- Prepared by
- Chemical Safety and Regulatory Affairs Consultant: MSc Burak AYAN
- (burakayan@ayansan.com)
- www.ayansan.com info@ayansan.com +90 (212) 485 50 59
- BRIMSTONE KİMYA SANAYİ TİCARET ANONİM ŞİRKETİ
- emn@brimco.co

16.3 Revision Date, Version and SDS no

- Date : February 17, 2020
- Version : 1.0
- SDS No : 094006

16.4 Reason of re-issue

- Compiling according to Regulation (EC) No 1272/2008

16.5 Relevant H- and EUH-phrases:

H315 Causes skin irritation

16.6 Legal disclaimer

- The purpose of the above information is to describe the products only in terms of health and safety requirements.
- The information given should not, therefore, be construed as guaranteeing specific properties or as specification.
- Customers should satisfy themselves as to the suitability and completeness of such information for their own particular use.
- The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.
- The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.
- The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. Due to the many factors outside our control when using this product, we cannot accept liability for any injury, accident, loss or damage caused through its use.

[1] SDS: Safety Data Sheet
[2] CLP: Classification Laballing and Packaging
[3] GHS: Global Harmonised System
[4] CAS : Chemical Abstract Service

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[5] EC : European Community number
[6] EN Standards: Personal Protective Equipment Standards Determined by CEN (European Committee for Standardization)
[7] ADR: Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
[8] RID: Regulations Concerning the International Transport of Dangerous Goods by Rail (European law)
[9] ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine (EU)
[10] IMDG: International Maritime Dangerous Goods (United Nations)
[11] ICAO: International Civil Aviation Organization
[12] IATA: International Air Transport Association