Section 1 Chemical Product and Company Identification

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Innovating Science® by Aldon Corporation "cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory use only. Not for drug, food or household use.

Product	SODIUM BISULFITE				
Svnonvms	Sodium Hydrogen Sulfite				

Section 2 Hazards Identification

Signal word: DANGER **Pictograms:** GHS05 / GHS07

Target organs: Respiratory system, Eyes, Skin



GHS Classification:

Acute toxicity, oral (Category 4) Eye damage (Category 1)

GHS Label information: Hazard statement:

H302: Harmful if swallowed. H318: Causes serious eye damage.

Supplementary Hazard Statement Code(s):

EUH031: Contact with acids liberates toxic gas.

Precautionary statement:

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P330: Rinse mouth.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3	Composition / Information on	Ingredients			
Chemical Name		CAS#	%	EINECS	
Sodium bisulfite Sodium metabisulfite		7631-90-5 7681-57-4	58-99% 1-42%	231-548-0 231-673-0	

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Dry chemical, ${\rm CO_2}$ or water spray.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with water gives a mildly acidic solution and liberates irritating sulfur dioxide gas.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 **Handling & Storage**

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Contact with acids or moisture liberates toxic sulfur dioxide gas.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Sodium bisulfite	TWA: 5 mg/m ³ (A4)	Not established	TWA: 5 mg/m ³

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9 **Physical & Chemical Properties**

Appearance: Solid. White granules Odor: Rotten egg odor Odor threshold: Data not available

pH: Data not available

Melting / Freezing point: Data not available Boiling point: Data not available

Flash point: Data not available

Evaporation rate (= 1): Data not available Flammability (solid/gas): Data not available Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): 1.48 Solubility(ies): Soluble in water

Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available

Viscosity: Data not available Molecular formula: Mixture Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Gradually decomposes in air to sulfate, generating sulfurous acid gas. Contact with moisture (water, ice, etc.) will release toxic sulfur dioxide gas.

Incompatible materials: Oxidizers, acids, alkalies, sodium nitrite, aluminum powder and water.

Hazardous decomposition products: Sulfur oxides.

Section 11 **Toxicological Information**

Acute toxicity: Oral-rat LD50: 1131 mg/kg

Skin corrosion/irritation: Skin-rabbit - Slight irritant. Serious eye damage/irritation: Eyes-rabbit - Severe irritant. Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

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.

IARC classified: Group 3: Not classifiable as to its carcinogenicity to humans.

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

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause coughing and wheezing.

Ingestion: Harmful if swallowed. Ingestion causes abdominal pain, diarrhea, nausea, and vomiting.

Skin: Contact with skin may cause irritation.

Eyes: Contact with eyes causes redness and pain. May cause irreversible damage.

Signs and symptoms of exposure: Some individuals are sensitive to minute amounts of sulfites in foods. Symptoms may include broncho constriction, shock, gastrointestinal disturbances, angio edema, flushing, and tingling sensation. Once allergy develops, future exposures can cause asthma attacks with shortness of breath, wheezing, and cough. Exercise appropriate procedures to minimize potential hazards. Additional information: RTECS #: VZ2000000

Ecological Information

Toxicity to fish: Lepomis macrochirus (fish, fresh water), LC50 = 32 mg/L/96H

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC50 = 89 mg/L/24H

Toxicity to algae: Scenedesmus subspicatus (Algae), EC50 = 40 mg/L/96H

Persistence and degradability: No data available Bioaccumulative potential: No data available PBT and vPvB assessment: No data available Mobility in soil: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Transport Information (US DOT / CANADA TDG) Section 14

UN/NA number: UN3260 Shipping name: Corrosive solid, acidic, inorganic, n.o.s., (Sodium bisulfite)

Reportable Quantity: Yes Hazard class: 8 Packing group: III Marine pollutant: No

2012 ERG Guide # 154 Exceptions: Limited quantity equal to or less than 5 Kg

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL
Sodium bisulfite	Listed	5000 lbs	Not listed	Listed	Not listed
Sodium metabisulfite	Listed	Not listed	Not listed	Listed	Not listed

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent dent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook

Form 06/2015 Revision Date: July 31, 2015 Supercedes: May 12, 2014 Section 1 **Chemical Product and Company Identification** Page E1 of E2

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SAFETY DATA SHEET

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory use only Not for drug, food or household use.

Product	VERMICULITE
Synonyms	None assigned
Section 2	Hazards Identification

Signal word: WARNING Pictograms: GHS07 Target organs: None known

GHS Classification: STOT-SE (Category 3)

GHS Label information: Hazard statement(s):

H335: May cause respiratory irritation.

Precautionary statement(s):

P261: Avoid breathing dust.

P271: Use only outdoors or in a well-ventilated area.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing

P312: Call a POISON CENTER or doctor/physician if you feel unwell. P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with all local, state and federal regulations.

Supplemental information:

Avoid processes that generate excessive dust and wear appropriate dust protection equipment to minimize potential hazards from chronic inhalation hazards.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on	Ingredients			
Chemical Name	CAS#	%	EINECS	
Vermiculite	1318-00-9	100%	None assigned	
Contains: Quartz	14808-60-7	<0.1%	238-878-4	

Section 4 **First Aid Measures**

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY CAUSE IRRITATION AND SORENESS IN THROAT AND NOSE. IN EXTREME EXPOSURES SOME CONGESTION MAY OCCUR. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: TEMPORARY IRRITATION OR INFLAMMATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower evelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 **Fire Fighting Measures**

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 **Accidental Release Measures**

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Minimize dust generation and accumulation. Use a dust suppressant such as water. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 **Handling & Storage**

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Minimize dust generation.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Silica, crystalline, α -quartz	TWA: 0.025 mg/m ³ (A2) respirable	Not listed	TWA: 0.05 mg/m ³ respirable

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9 **Physical & Chemical Properties**

Appearance: Solid. Tan-brown coarse particles

Odor: No odor.

Odor threshold: Data not available

pH: Data not available

Melting / Freezing point: 1350°C (2462°F) Boiling point: Data not available

Flash point: Non-flammable

Evaporation rate (= 1): Data not available Flammability (solid/gas): Not applicable Explosion limits: Lower / Upper: Not applicable Vapor pressure (mm Hg): Data not available

Vapor density (Air = 1): Data not available Relative density (Specific gravity): 2.5 Solubility(ies): Negligible in water (<1%)

Partition coefficient: Data not available Auto-ignition temperature: Not applicable Decomposition temperature: Data not available

Marine pollutant: No

Viscosity: Not applicable Molecular formula: Mixture Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: None in designed use. Incompatible materials: Hydrofluoric acid.

Hazardous decomposition products: None known. Toxic silicon tetrafluoride gas will result with contact with hydrofluoric acid.

Section 11 **Toxicological Information**

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: This product contains less than 0.1% crystalline silica, and few particles of respirable size, hence present very low risk. 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.

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.

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

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory effects.

STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: May be harmful if inhaled over long periods.

Ingestion: No hazard expected. Skin: No hazard expected. Eyes: Transient irritation.

Signs and symptoms of exposure: This product contains crystalline silica, which is considered to be a hazard by inhalation. Crystalline silica is also a known cause of

silicosis, a non-cancerous lung disease. Symptoms may include coughing from excess inhalation and eye irritation from dust particles.

Additional information: RTECS #: Not listed Section 12 **Ecological Information**

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Transport Information (US DOT / CANADA TDG) Section 14

UN/NA number: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable

Reportable Quantity: No

Exceptions: Not applicable 2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL
Vermiculite	Listed	Not listed	Not listed	Not listed	Not listed

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent dent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

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