SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Name: Alginate Impression Materials
Product Use: Dental product: Impression Material

Manufacturer: Kerr Corporation
1717 W. Collins Ave.
Orange, CA 92867-5422
U.S.A.

Information Phone Number: 1-800-841-1428 (Customer Service)

Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

SDS Date of Preparation/Revision: June 19, 2019

Section 2. Hazards Identification

GHS Classification:
Eye Irritation Category 2A
Carcinogenicity Category 1A
Specific Target Organ Toxicity Repeated Exposure Category 1

Label Elements:
Danger!

Hazard Phrases
Causes serious eye irritation.
May cause cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary Phrases:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust or vapors.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection or face protection.
If exposed or concerned: Get medical attention.
Get medical attention if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Store locked up.
Dispose of contents and container in accordance with local and national regulations.

Section 3. Composition/Information on Ingredients

Component	CAS No.	Amount
Kieselguhr, soda ash flux-calcined	68855-54-9	30-60%
Silicon dioxide, non-respirable	14464-46-1	30-60%
Alginic acid, potassium salt	9005-36-1	10-30%
Cristobalite, respirable	14464-46-1	1-5%
Dipotassium hexafluorotitanate	16919-27-0	1-5%
Zinc borate	138265-88-0	1-5%
Tetrasodium pyrophosphate	7722-88-5	1-5%

Section 4. First Aid Measures

Inhalation: Remove victim to fresh air. Get immediate medical attention if symptoms occur.

Skin Contact: Flush thoroughly with water. Get medical attention if irritation or symptoms of exposure develop. Remove and launder contaminated clothing before re-use.

Eye Contact: Rinse thoroughly with water. Get medical attention if irritation occurs and persists.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. Keep the victim calm and warm. Get immediate medical attention.

Most important symptoms and effects, acute and delayed: Causes serious eye irritation. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Indication of immediate medical attention and special treatment, if needed: Immediate medical attention is not required.

Section 5. Fire Fighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media appropriate for the surrounding fire. Cool fire exposed containers with water.

Specific Hazards Arising from the Chemical: Combustion may produce carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, halogenated compounds, metal oxides, and fluoride compounds.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored. Cool fire-exposed containers with water. Contain water used in firefighting from entering sewers or natural waterways.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Evacuate spill area and keep unprotected personnel away. Avoid contact with eyes, skin and clothing. Wear appropriate protective clothing and equipment. Do not breathe dust or vapors.

Environmental Precautions: Avoid releases to the environment. Report spill as required by local and federal regulations.

Methods and Materials for Containment and Cleaning up: Prompt cleanup and removal are necessary. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. For large spills, approach release from upwind. Avoid creating dusty conditions and prevent wind dispersal. Place spilled material in an appropriate waste disposal container.

Section 7. Handling and Storage

Precautions for Safe Handling: Prevent contact with eyes, skin and clothing. Always wear impervious gloves, chemical safety goggles, protective clothing, and face mask/face protection when handling this material. Do not eat, drink or smoke in the work area. Do not breathe dust or vapors. Use with adequate ventilation. Remove and wash contaminated clothing before reuse.

Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, dry, well-ventilated area away from direct sunlight. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

Chemical	Exposure Limit
Kieselguhr, soda ash flux-calcined	None Established
Silicon dioxide, non-respirable	None Established
Alginic acid, potassium salt	None Established
Cristobalite	0.05 mg/m^3 TWA OSHA PEL (respirable dust)
Dipotassium hexafluorotitanate	None Established
Zinc borate	15 mg/m^3 TWA OSHA PEL (total dust) 5 mg/m^3 TWA OSHA PEL (respirable dust)
Tetrasodium pyrophosphate	5 mg/m^3 TWA OEL

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, an approved respirator with particulate cartridges

is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with applicable regulations and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Hand protection: Impervious gloves are suggested to prevent skin contact. Contact your glove supplier for selection assistance.

Eye Protection: Chemical safety goggles are recommended if contact is possible.

Skin Protection: Wear protective clothing as needed to avoid skin contact and contamination of personal clothing.

Hygiene measures: Suitable eye and skin washing facilities should be available in the work area.

Section 9. Physical and Chemical Properties

Appearance:	Powder of various colors	**Odor:**	Pleasant
Odor Threshold:	Not available	**pH:**	Not available
Melting/Freezing Point:	Not available	**Boiling Point/Range:**	Not available
Flash Point:	Not flammable	**Evaporation Rate:**	Not available
Flammability: (Solid, Gas)	Not applicable	**Flammability Limits:**	LEL: Not applicable UEL: Not applicable
Vapor Pressure:	Not available	**Vapor Density:**	Not available
Relative Density:	Various	**Solubilities:**	Not available
Partition Coefficient: (N-Octanol/Water)	Not available	**Autoignition Temperature:**	Not available
Decomposition Temperature:	Not available	**Viscosity:**	Various

Section 10. Stability and Reactivity

Reactivity: The product is not expected to be reactive.
Chemical Stability: Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to avoid: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible Materials: Oxidizing materials and hydrofluoric acid.
Hazardous decomposition products: None if stored normally.

Section 11. Toxicological Information

Potential Health Effects:

Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin Contact: None known.
Eye Contact: Causes serious eye irritation.
Ingestion: None known.
Chronic Hazards: Causes damage to organs through prolonged or repeated exposure. Breathing excessive silica dust for a long time can cause silicosis. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Product may cause cancer. However, risk of cancer depends on duration and level of exposure.

Skin Sensitization: No adverse effects expected. This product is not expected to cause skin sensitization.

Respiratory Sensitization: No data available. This product is not expected to cause respiratory sensitization.

Germ Cell Mutagenicity: None of the components are mutagenic.

Carcinogen: Cristobalite is listed as “Carcinogenic to Humans” (Group 1) by IARC and “Known to be a Human Carcinogen” by NTP. None of the other components are listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

Developmental / Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Specific Target Organ Toxicity (Single Exposure): No data available.

Specific Target Organ Toxicity (Repeated Exposure): Repeated exposure to Cristobalite might affect lungs through inhalation. Repeated exposure to Dipotassium hexafluorotitanate may affect bones and teeth.

Aspiration Toxicity: No data available.

Acute Toxicity Values:
Product ATE: 11765 mg/kg (Oral)
Kieselguhr, soda ash flux-calcined: LD50 Oral rat: >2000 mg/kg
Alginic acid, potassium salt: LD50 Oral rat: >5000 mg/kg
Cristobalite: LC50 Oral rat: 3160 mg/kg
Dipotassium hexafluorotitanate: LD50 Oral rat: 324 mg/kg
Zinc borate: LD50 Oral rat: >10000 mg/kg;
Tetrasodium pyrophosphate: LD50 Oral rat: 3770 mg/kg; LD50 Dermal rabbit: >7940 mg/kg

Section 12. Ecological Information

Toxicity: Tetrasodium pyrophosphate: 96 hr LC50 Mosquito fish 1380 mg/L;
48 hr EC50 Daphnia magna 391 mg/L

This product is expected to be harmful to the aquatic environment. Releases to the environment should be avoided.

Persistence and degradability: Biodegradation is not applicable to inorganic substances.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

Section 13. Disposal Considerations

Disposal: For unused solution, flush thoroughly with large quantities of water into sewage disposal system in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.
Container Disposal: Rinse empty container thoroughly with water and discard clean, empty container as general trash or offer for recycling, if available.

Section 14. Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not Regulated	None	None	None
Canada TDG	None	Not Regulated	None	None	None
IMDG	None	Not Regulated	None	None	None
IATA/ICAO	None	Not Regulated	None	None	None

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Refer to Section 2 for OSHA Hazard Classification.

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Protection Of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

US EPA TSCA Inventory: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

Canadian Regulations:

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

National Pollutant Release Inventory (NPRI): This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements NPRI: None.

International Inventories

Australia: All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

New Zealand: All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

Section 16. Other Information

NFPA Rating: Fire: 0 Health: 2 Instability: 0

Effective Date: June 19, 2019
Supersedes Date: May 22, 2019
Revision Summary: Section 3 – Updated.
Section 6 – Updated cleaning methods.
Section 7 – Added face mask/face protection to PPE.
Section 8 – Updated exposure limits.
Section 10 – Updated conditions to avoid and incompatible materials.
Sections 11, 12 – Updated toxicity values.
Section 15 – Updated international regulations.

The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, KERR Corporation makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.

Signature Manifest

Document Number: DC-SDS-500001 **Revision:** 1

Title: Alginate Impression Materials - US

All dates and times are in Pacific Standard Time.

Alginate Impression Materials - US

Collaboration

Name/Signature	Title	Date	Meaning/Reason
KATELYNN NGO (KATELYNN.NGO)		06 Aug 2019, 11:33:27 AM	Complete

Approve SDS

Name/Signature	Title	Date	Meaning/Reason
KATELYNN NGO (KATELYNN.NGO)		06 Aug 2019, 11:33:40 AM	Approved

Oracle (SDS Section 14 Updated)

Name/Signature	Title	Date	Meaning/Reason
KATELYNN NGO (KATELYNN.NGO)		06 Aug 2019, 11:33:51 AM	Reviewed

Web Publishing and Closure

Name/Signature	Title	Date	Meaning/Reason
KATELYNN NGO (KATELYNN.NGO)		06 Aug 2019, 11:34:04 AM	Approved

Notification

Name/Signature	Title	Date	Meaning/Reason
Alessandra Bufo (ALESSANDRA.BUFO)		06 Aug 2019, 11:34:04 AM	Email Sent
Arnaud Moins (ARNAUD.MOINS)		06 Aug 2019, 11:34:04 AM	Email Sent
Aurelia Wurzel (AURELIA.WURZEL)		06 Aug 2019, 11:34:04 AM	Email Sent
Emiliano Bini (EMILIANO.BINI)		06 Aug 2019, 11:34:04 AM	Email Sent
Jozef Szentkereszty (JOZEF.SZENTKERESZTY)		06 Aug 2019, 11:34:04 AM	Email Sent
KATELYNN NGO (KATELYNN.NGO)		06 Aug 2019, 11:34:04 AM	Email Sent
Katerina Baresova (KATERINA.BARESOVA)		06 Aug 2019, 11:34:04 AM	Email Sent
Paride Antonelli (PARIDE.ANTONELLI)		06 Aug 2019, 11:34:04 AM	Email Sent
Ruggero Alzetta (RUGGERO.ALZETTA)		06 Aug 2019, 11:34:04 AM	Email Sent
Sandra Capurso (SANDRA.CAPURSO)		06 Aug 2019, 11:34:04 AM	Email Sent
Tina Tedder (TINA.TEDDER)	SCIENTIST	06 Aug 2019, 11:34:04 AM	Email Sent

Veronica Antoniolli (VERONICA.ANTONIOLLI)	06 Aug 2019, 11:34:04 AM	Email Sent