

SHORECHEM, LLC

MATERIAL SAFETY DATA SHEET

Potassium Sulfate

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Potassium Sulfate

OTHER/GENERIC NAMES: Dipotassium sulfate
Natural arcanite

PRODUCT CODES: 197-5804, 197-2866

PRODUCT USE: Industrial

DISTRIBUTOR: ShoreChem, LLC
12 Route 17 North, Suite 309
Paramus, NJ 07652

TELEPHONE: (201) 845-4666
(Monday-Friday, 8:30 AM – 5:00 PM)

CHEMTREC PHONE: 1800-424-9300
(24 Hours/Day, 7 Days/Week)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME:</u>	<u>CAS NO.</u>	<u>% WT</u>
Potassium sulfate	7778-80-5	99
Hydrated amorphous silica (anti-cake agent)	7631-86-9	1

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDS. These materials may be listed for local "Right-To-Know" compliance and for other reasons.

OSHA Hazard Communication Standard: *This product is considered hazardous under the OSHA Hazard Communication Standard.*

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: A white or off-white powder. Essentially odorless. May cause irritation to the skin, eyes, respiratory tract and gastrointestinal tract. Not flammable.

POTENTIAL HEALTH HAZARDS

SKIN: Irritation may result from prolonged skin contact.

EYES: Contact with dust or mist may irritate eyes. Prolonged contact may cause redness and conjunctivitis.

INHALATION: Mild irritant. Dust inhalation may irritate the nose, throat and lungs. May cause coughing.

INGESTION: Acute potassium intoxication is rare since the potassium ion tends to cause vomiting. Massive doses exceeding about 100 grams of potassium sulfate cause severe gastrointestinal irritation and might be capable of causing fatal cardiac arrhythmias. Smaller doses will likely irritate the mouth, esophagus, stomach, etc.

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DELAYED EFFECTS: None known.

Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section			

SECTION 4: FIRST AID MEASURES

SKIN: Wash with soap and water, then flush with water until all chemical is removed. Remove contaminated clothing and wash before reuse. If irritation develops, get medical attention.

EYES: Flush promptly with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

INHALATION: Remove to fresh air. If breathing is difficult, give oxygen provided a qualified operator is available. Get medical attention for irritation or discomfort.

INGESTION: If conscious, give 2 to 4 glasses of water, then induce vomiting by touching back of throat with finger. Get medical attention.

ADVICE TO PHYSICIAN: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	Not flammable
FLASH POINT METHOD:	Not applicable
AUTOIGNITION TEMPERATURE:	Not applicable
UPPER FLAME LIMIT (volume % in air)	Not applicable
LOWER FLAME LIMIT (volume % in air)	Not applicable
FLAME PROPAGATION RATE (solids)	Not applicable

EXTINGUISHING MEDIA:

Dry chemical, water spray, alcohol foam, carbon dioxide.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Negligible fire and explosion hazard when material is exposed to heat or flame. However, hazardous decomposition products should be noted.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

Remove containers from fire exposure, if without risk. Cool fire-exposed containers with water spray. Although no acute hazard is expected, firefighters should wear full protective clothing and, should toxic fumes of sulfur oxides evolve from thermal decomposition, NIOSH-approved, self-contained breathing apparatus should be made available.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: (See section 8 for recommended personal protective equipment.)
Shovel up dry chemical for use or disposal. Sweep up with a minimum of dusting and maximize recovery.
Flush residue with water to complete clean-up, if permitted by applicable disposal regulations.

Spills and releases may have to be reported to Federal and/or local authorities. See section 15 regarding reporting requirements.

SECTION 7: HANDLING AND STORAGE

NORMAL HANDLING: (See section 8 for recommended personal protective equipment.)
Avoid contact with skin, eyes and clothing. Avoid breathing dust. Wash thoroughly after handling and follow good personal hygiene and good housekeeping practices. Keep containers closed. Handle in a manner to minimize dusting.

STORAGE RECOMMENDATIONS:
Store in a cool, dry area. Keep containers upright and tightly closed. Protect from damage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide local exhaust if dusty conditions prevail. Natural ventilation is generally adequate in the absence of dusty conditions.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION:	Wear long-sleeve shirt, trousers and gloves for routine product use or handling.
EYE PROTECTION:	Under normal conditions, wear safety glasses. Under dusty conditions, wear chemical safety goggles. Do not wear contact lenses.
RESPIRATORY PROTECTION	Under normal conditions, not required. Where dusty conditions develop, use a NIOSH-approved respirator for dusts.
ADDITIONAL RECOMMENDATIONS	Eye wash and safety showers.

EXPOSURE GUIDELINES:

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER LIMIT</u>
No ingredients listed in this section.			

- ¹ = Limit established by Industry Standard.
² = Workplace Environmental Exposure Level (AIHA).
³ = Biological Exposure Index (ACGIH).

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OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

None

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White or off-white powder.
PHYSICAL STATE:	Solid
MOLECULAR WEIGHT:	174.27
CHEMICAL FORMULA:	K ₂ SO ₄
ODOR:	Odorless
SPECIFIC GRAVITY (H₂O = 1):	2.662
SOLUBILITY IN WATER (weight %):	11% @ 25C
pH:	Approximately 7 (aqueous solution)
BOILING POINT:	1670C
MELTING POINT:	1072C
VAPOR PRESSURE:	Not applicable
VAPOR DENSITY (air= 1.0):	Not applicable
EVAPORATION RATE:	Not applicable
% VOLATILES:	Not applicable
FLASH POINT:	Not flammable

COMPARED TO: Not Applicable

(Flash point method and additional flammability data are found in Section 5.)

SECTION 10: STABILITY AND REACTIVITY

NORMALLY STABLE/(CONDITIONS TO AVOID):

Stable under normal conditions.

INCOMPATIBILITIES:

Active metals, such as aluminum and magnesium. Violent explosion occurs when potassium sulfate is melted with aluminum.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products would be expected to include toxic fumes or sulfur oxides.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Potassium sulfate:
LD₅₀ (oral-rat): 6600 mg/kg

DELAYED (SUBCHRONIC AND CHRONIC EFFECTS)

Data not available.

OTHER DATA:

None.

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SECTION 12: ECOLOGICAL INFORMATION

Date not available.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous Waste if discarded? No **If yes, the RCRA ID number is:** Not applicable.

OTHER DISPOSAL CONSIDERATIONS:

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product such as Mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

SECTION 14: TRANSPORT INFORMATION

US DOT HAZARD CLASS: Not regulated

US DOT ID NUMBER:

PROPER SHIPPING NAME:

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Listed on the TSCA Inventory of Chemical Substances
(anhydrous form, CAS# 11128-29-3)

OTHER TSCA ISSUES: None

SARA TITLE III/ CERCLA

"Reportable/ Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

INGREDIENT NAME

SARA/CERCLA RQ (LB)

SARA EHS TPQ(LB)

No ingredients listed in this section

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800) 424-8803 and to your Local Emergency Planning Committee.

SECTION 311 HAZARD CLASS: Immediate

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals" and may be subject to annual reporting requirements. CAS numbers and weight percents are found in Section 2.

INGREDIENT NAME

COMMENT

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STATE RIGHT-TO-KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>INGREDIENT NAME</u>	<u>WEIGHT%</u>	<u>COMMENT</u>
No ingredients listed in this section.		

ADDITIONAL REGULATORY INFORMATION:

None listed.

WHMIS CLASSIFICATION (CANADA):

D2A

FOREIGN CHEMICAL CONTROL INVENTORY STATUS

Anhydrous form is listed on Canadian DSL and EU EINECS.

SECTION 16: OTHER INFORMATION

CURRENT ISSUE DATE: November, 2005

PREVIOUS ISSUE DATE: January, 2005

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:

New Format

OTHER INFORMATION: None

All information, statements, data, advice and/or recommendations, including, without limitation, those relating to storage, loading/unloading, piping and transportation (collectively referred to herein as "information") are believed to be accurate and reliable. However, no representation or warranty, express or implied, is made as to its completeness, accuracy, fitness or a particular purpose or any other matter, including, including, without limitation, that the practice of application of any such information is free of patent infringement or other intellectual property misappropriation. ShoreChem, LLC is not engaged in the business of providing technical, operational, engineering or safety information for a fee, and therefore, any such information provided herein has been furnished as an accommodation and without charge. All information provided herein is intended for use by persons having requisite knowledge, skill and experience in the chemical industry. ShoreChem, LLC shall not be responsible or liable for the use, application or implementation of the information, provided herein, and all such information is to be used at the risk, and in the sole judgment and discretion, of such persons, their employees, advisors, and agents.

Date Created	Created By	Replaces	Area	Product/ Process	Special
11/04/05	JD	7/27/05	MSDS	Pot. Sulfate	CCS