

SAFETY DATA SHEET

Company Name: Superior Stone Products, Inc.

Product Name: LIGHTNING

Issue Date: 12/22/15

Revision Date: 12/22/15

SDS Number: 200-51200



Section I –Product and Company Identification

Product Identifier: LIGHTNING
Product Description/Use: Stone Color Enhancer
Product Code: 51200

Company:
Superior Stone Products, Inc.
8580 Byron Commerce Drive
Byron Center, MI 49546
Phone: (616) 583-0171

24 Hour Emergency Telephone Number:
CHEMTREC 800-424-9300

Section II – Hazards Identification

GHS Hazard Classification(s):

Flammable Liquid: Category 2

Skin Sensitization: Category 1

Reproductive Toxicity: Category 4, Inhalation

Serious Eye Damage/Irritation: Category 2A



Symbols:

Signal Word(s): **Danger**

Hazard Statements:

H225: Highly flammable liquid and vapor.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H361: Suspected of damaging fertility or the unborn child.

Precautionary Statements:

Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing fumes/gas/mist/vapours/spray.

P264: Wash skin thoroughly after handling.

P272: Contaminated work clothing must not be allowed out of the workplace.

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

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

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 advice/attention. Wash contaminated clothing before reuse. If exposed or concerned: get medical advice/attention.

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Storage

P405: Store locked up. Store in a well ventilated place.
Keep cool.

Disposal

P501: Dispose of contents and container in accordance with all local, regional, national, international regulations.

Hazards not otherwise classified: None known.

Section III – Composition/Information on Ingredients

Substance/Mixture: Mixture

<u>Ingredient</u>	<u>Synonym(s)</u>	<u>% (By Weight)</u>	<u>CAS#</u>	<u>EINECS No.</u>
Aliphatic Hydrocarbon	Stoddard Solvent; Mineral Spirits, Quick-drying Mineral Spirits, Short-range Mineral Spirits; Type IVC Mineral Spirits	35-45%	64742-47-8	265-149-8
Methyltrimethoxysilane	Trimethocymethylsilane, Silane A-163, NSC 93883	5-15%	1185-55-3	214-685-0

Section IV – First Aid Measures

If Swallowed: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin Contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

If Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Eyes: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Note to Physicians: Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid which can cause pneumonitis.

Section V - Fire Fighting Measures

Suitable Extinguishing Media: Water Spray, fog, foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media: Do not use water jet.

Special Fire Fighting Procedures: Firefighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus and full protective clothing. Equipment should be thoroughly decontaminated after use.

Unusual Fire and Explosion Hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.

Hazardous Products of Combustion: Decomposition products may include the following material: carbon oxides, silicon oxides.

Other Remarks: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapor is heavier than air and may settle in low places or spread long distances to a source of ignition and flashback.

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Section VI - Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Provide adequate ventilation.

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. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See also the information for non-emergency personnel.

Methods and Materials for Containment and Cleaning Up

Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section VII - Handling and Storage

Precautions for Safe Handling

Protective Measures: Put on appropriate personal protection equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breath vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined space unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible materials, kept tightly closed when not in use. Store and use away from heat, sparks open flame or any other ignition source. Use explosion-roof electrical (ventilating, lighting and material handling) equipment. Use only on-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do no reuse container.

Advice on General Occupational Health: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including and Incompatibles: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Segregate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do no store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Refer to the product label and/or technical data sheet for further information.

Section VIII - Exposure Controls/Personal Protection

Likely Routes of Exposure: Inhalation, Dermal, Ingestion.

Control Parameters

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Occupational exposure Limits:

Ingredient Name

C9-C15 Cycloalkanes

Exposure Limits

ACGIH TLV (United States)

TWA: 400 ppm - 8 hours

Form: Methylcyclohexane

Naphthol Spirits 66/3

ACGIH TLV (United States)

TWA: 216 ppm (1200 mg/m³) - 8 hours

Notes: The TLV for the hydrocarbon solvent is based on the procedure described in Appendix H ("Reciprocal Calculations Method for Certain Refined Hydrocarbon Solvent Vapors") of the ACGIH TLVs ® and BEIs ® guidelines. The GGV mixture (ACGIH TLV) is based on Column B (McKee et al., 2005) of Table 1 ("Group Guidance Values") of Appendix H.

Mineral Spirits

OSHA PEL (United States)

TWA: 100 ppm - 8 hours

ACGIH TLV (United States)

TWA: 100 ppm- 8 hours

Methyltrimethoxysilane

OSHA PEL (United States)

TWA: 50 ppm - 8 hours

Engineering Controls: Use only with adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard. Engineering controls also need to keep gas vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental Exposure Controls: Emissions from ventilation of work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. .

Individual Protection Measures

Hygiene Measures: Wash Hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gasses or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hand Protection: Chemical-resistant, 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying 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.

Section IX – Physical and Chemical Properties

Physical State: Liquid

Color: Straw

Odor: Strong

Odor Threshold: No information available.

pH: Not Available

Melting Point: No information available.

Boiling Point: >149°F/>65°C

Flash Point: Seta closed Cup: 50°F/10°C

Evaporation Rate: No information available.

Lower and Upper Explosive (Flammable) Limits: No information available.

Vapor Pressure: No information available.

Vapor Density: No information available.

Relative Density: No information available.

Solubility: Not miscible with water.

Partition Coefficient: n-Octanol/water : No information available.

Auto-Ignition temperature: No information available.

Decomposition Temperature: No information available.

Viscosity: 45 CST

VOC Content: <55 g/l

Section X - Stability and Reactivity

Reactivity: Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Use at elevated temperatures may form highly hazardous compounds.

Chemical Stability: Material is stable under normal conditions.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Incompatibility (materials to avoid): Oxidizing agents, acids, bases.

Hazardous Decomposition: With water or humid air: Ethanol, Methanol, Butan-1-ol. Thermal: Formaldehyde.

Section XI - Toxicological Information

Primary Routes of Entry: Eye, Skin, Ingestion, Inhalation.

Potential Health Effects:

Inhalation

Exposure to high vapor concentrations may cause eye and respiratory tract irritation, headache, dizziness, nausea, drowsiness and loss of consciousness.

Ingestion:

Although ingestion is unlikely, liquid would irritate upper digestive tract if swallowed.

Skin:

Prolonged and repeated contact with skin can cause defatting and drying of the skin resulting in skin irritation and dermatitis.

Eyes:

Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product.

Signs and Symptoms of Exposures:

No information available

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Acute Toxicity:

PRODUCT:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h

Test atmosphere: vapor

Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

INGREDIENT: Methyltrimethoxysilane

Acute oral toxicity : LD50 (Rat): 12.3 ml/kg

Assessment: The substance or mixture has no acute oral toxicity

Remarks: Information taken from reference works and the literature.

Acute inhalation toxicity : LC50 (Rat): > 42.1 mg/l

Exposure time: 6 h

Test atmosphere: vapor

Assessment: The substance or mixture has no acute inhalation toxicity

Specific Target Organ Toxicity (Single Exposure): C9-C15 Cycloalkanes, C9-C15 Alkanes, Category 3, Narcotic effects.

Specific Target Organ Toxicity (Repeated Exposure): Not available.

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposures:

Conclusion/Summary: The most common effects observed in repeated dose animal studies with mineral spirits are kidney changes that are consistent with an alpha 2u-globulin-mediated process that is not regarded as relevant to humans. The kidney damage occurred only in male rats and appeared to involve both the tubules and glomeruli. Certain studies have reported effects in the liver as well a hematological or urine chemistry changes. In general, these effects have not been shown to be dose-related.

Based on animal studies, the potential for persistent effects is not clear. In certain repeated dose animal studies have changes were reported in behavior, neurochemistry and sensory evoked potentials which may be irreversible. Repeated exposure to elevated concentrations of hydrocarbon solvents can produce a variety of transient CNS effects (e.g., dizziness, headache, narcosis, etc).

Section XII - Ecological Information

Ecotoxicity (Aquatic and Terrestrial):

Methyltrimethoxysilane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia sp.): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to bacteria : EC50: > 100 mg/l

Method: OECD Test Guideline 209

No Information Available

Bioaccumulative Potential:

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Mobility in Soil: No Information Available
PBT and vPvB Assessment: No Information Available
Other Adverse Effects: No Information Available

Section XIII - Disposal Considerations

The information in this section contains generic advice and guidance. The list of identified uses in Section 1 should be consulted for any available use-specific information.

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Disposal of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid disposal. Attempt to use product completely in accordance with intended use. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is no feasible.

Special Precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, water ways, drains and sewers.

Section XIV - Transportation Information

DOT (DEPARTMENT OF TRANSPORTATION)

Technical Name: Flammable Liquid, n.o.s.
(Methyltrimethoxysilane)

Hazard Class: 3
NA/UN Number: 1993
Packing Group: II
Marine Pollutant: No

Please refer to DOT regulations for more info

Canada (TDG)

Technical Name: Flammable Liquid, n.o.s.
(Methyltrimethoxysilane)

Hazard Class: 3
NA/UN Number: 1993
Packing Group: II

Please refer to TDG Regulations for more info

International Air Transport Association (IATA)

Technical Name: Flammable Liquid, n.o.s.
(Methyltrimethoxysilane)

Hazard Class: 3
NA/UN Number: 1993
Packing Group: II
ERG Code: 3H
Environmental Hazard: No

Please refer to IATA regulations for more info.

International Maritime Organization (IMO)

Technical Name: Flammable Liquid, n.o.s.
(Methyltrimethoxysilane)

Hazard Class: 3
NA/UN Number: 1993
Packing Group: II
EmS: F-E, S-E
Environmental Hazard: No

Please refer to IMO regulations for more info.

Special Precautions for User: Transport within users premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the products know what to do in the event of an accident or spillage.

Section XV - Regulatory Information

United States Federal Regulations:

Sara Title III - Section 311/312

<u>Criteria</u>	<u>Yes/No</u>
Immediate (Acute) Health Effects:	Yes
Chronic (Delayed) Health Effects:	Yes
Fire Hazard:	Yes

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Sudden Release of Pressure Hazard: No

Reactivity: No

State Regulations:

Massachusetts: No information available.

Pennsylvania: The following components are listed: Methyltrimethoxysilane (1185-55-3) 5-15 %

New Jersey: The following components are listed: Methyltrimethoxysilane (1185-55-3) 5-15 %

California Prop 65:

WARNING: This product contains less than 0.1% of a chemical known to the state of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient Name</u>	<u>%</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
Toluene	<0.1	No	Yes	No	7000 µg/day (ingestion)
Ethylbenzene	<0.01	Yes	No	41 µg/day (ingestion) 54 µg/day (inhalation)	No
Napthalene	<0.001	Yes	No	Yes	No
Benzene	<0.0001	Yes	Yes	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)

Canada:

Canadian WHMIS Classification: B3, D2B

Ingredient Disclosure List: All components are listed or exempted.

Section XVI - Other Information

Hazardous Material Information System (United States):

Health 2

Flammability 3

Physical Hazards 0

Caution: HMIS® rating are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating are not required on SDSs under 29 CFR 19101200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (United States):

Health: 2

Fire Hazard: 3

Reactivity Hazard: 0

Special: -

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPS 49 and NFPA 325 which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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