

1. Identification

Product name : S-456 Patch Strong™
Patching & Smoothing Compound

Supplier : Armstrong Flooring, Inc.
2500 Columbia Avenue, Lancaster, PA 17603

Telephone : 1.800.233.3823

E-mail address : www.floorexpert.com

Emergency telephone : 1.800.255.3924
INTERNATIONAL: +01-813-248-0585 (CALL COLLECT)


Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

2. Hazards identification

GHS Classification

Skin corrosion, Category 1C	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Carcinogenicity, Category 1A (Inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs	H372: Causes damage to organs through prolonged or repeated exposure.

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H350i May cause cancer by inhalation.
H372 Causes damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary Statements : P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Prevention:

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P281 Use personal protective equipment as required.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P310 Immediately call a POISON CENTER/doctor.
 P363 Wash contaminated clothing before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.
 There are no hazards not otherwise classified that have been identified during the classification process.
 There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

3. Composition/information on ingredients

Pure substance/mixture : Mixture

Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
Quartz (SiO ₂)	14808-60-7	$\geq 25 - < 50 \%$
Portland cement	65997-15-1	$\geq 10 - < 20 \%$
Quartz (SiO ₂) <5µm	14808-60-7	$\geq 0.1 - < 1 \%$

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Prolonged exposure can cause silicosis.
- Health injuries may be delayed.
corrosive effects
irritant effects
carcinogenic effects
- Cough
Respiratory disorder
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.
- Causes serious eye damage.
May cause respiratory irritation.
May cause cancer by inhalation.
Causes damage to organs through prolonged or repeated exposure.
Causes severe burns.
- Protection of first-aiders : Move out of dangerous area.
Consult a physician.
Show this material safety data sheet to the doctor in attendance.
- Notes to physician : Treat symptomatically.

5. Fire-fighting measures

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Avoid breathing dust. Deny access to unprotected persons.

- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.

- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. Handling and storage

- Advice on safe handling : Avoid formation of respirable particles. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.

- Conditions for safe storage : Prevent unauthorized access. Store in original container. Keep in a well-ventilated place. Observe label precautions. Store in accordance with local regulations.

- Materials to avoid : No data available

8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO ₂)	14808-60-7	OSHA Z-3	TWA	10 mg/m ³ /

				%SiO ₂ +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO ₂ +5 respirable
		OSHA P0	TWA	0.1 mg/m ³ Respirable fraction
		ACGIH	TWA	0.025 mg/m ³ Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m ³ Respirable dust
Portland cement	65997-15-1	ACGIH	TWA	1 mg/m ³ Respirable fraction
		OSHA Z-1	TWA	15 mg/m ³ total dust
		OSHA Z-1	TWA	5 mg/m ³ respirable fraction
		OSHA Z-3	TWA	50 Million particles per cubic foot Dust
		OSHA P0	TWA	10 mg/m ³ Total dust
		OSHA P0	TWA	5 mg/m ³ respirable dust fraction
calcium sulfate	7778-18-9	OSHA Z-1	TWA	15 mg/m ³ total dust
		OSHA Z-1	TWA	5 mg/m ³ respirable fraction
		OSHA P0	TWA	15 mg/m ³ Total
		OSHA P0	TWA	5 mg/m ³ Respirable fraction
		OSHA P0	TWA	15 mg/m ³ Total dust
		OSHA P0	TWA	5 mg/m ³ respirable dust fraction

		ACGIH	TWA	10 mg/m3 Inhalable fraction
		ACGIH	TWA	10 mg/m3 Inhalable fraction
Limestone	1317-65-3	OSHA Z-1	TWA	15 mg/m3 total dust
		OSHA Z-1	TWA	5 mg/m3 respirable fraction
		OSHA P0	TWA	15 mg/m3 Total
		OSHA P0	TWA	5 mg/m3 Respirable fraction
		OSHA P0	TWA	15 mg/m3 Total dust
		OSHA P0	TWA	5 mg/m3 respirable dust fraction
Quartz (SiO ₂) <5µm	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO ₂ +2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO ₂ +5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

****Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

Engineering measures : Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection : Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection
Remarks

: 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.

Eye protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection

: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures

: Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.
Wash thoroughly after handling.
Avoid breathing dust.

9. Physical and chemical properties

Appearance : powder
Color : gray
Odor : characteristic
Odor Threshold : No data available
Flash point : Note: Not applicable
Ignition temperature : No data available
Decomposition temperature : No data available

Lower explosion limit (Vol%)	:	No data available
Upper explosion limit (Vol%)	:	No data available
Flammability (solid, gas)	:	No data available
Oxidizing properties	:	No data available
pH	:	ca. 11
Melting point/range / Freezing point	:	No data available
	:	Note: Not applicable
Vapor pressure	:	No data available
Density	:	ca. 1.17 g/cm ³ at 68 °F (20 °C)
Water solubility	:	No data available
Partition coefficient: n- octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Note: Not applicable
Relative vapor density	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Volatile organic compounds (VOC) content	:	Not applicable

10. Stability and reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Stable under recommended storage conditions.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available

11. Toxicological information**Acute toxicity**

Not classified based on available information.

Skin corrosion/irritation

Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Remarks: Product contains Portland cement which contains a chromate reducing agent. If the storage conditions are not appropriate (exposure to humidity) or the storage period is exceeded, the effectiveness of the reducing agent can be diminished prematurely and the product may become skin sensitizing.

Germ cell mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure.
Prolonged exposure can cause silicosis.

Aspiration toxicity

Not classified based on available information.

Carcinogenicity

May cause cancer by inhalation.

IARC

Group 1: Carcinogenic to humans

Quartz (SiO₂) 14808-60-7

Quartz (SiO₂) <5µm 14808-60-7

NTP

Known to be human carcinogen

Quartz (SiO₂) 14808-60-7

Quartz (SiO₂) <5µm 14808-60-7

12. Ecological information

Other information

Do not empty into drains; dispose of this material and its container in a safe way.

13. Disposal considerations**Disposal methods**

Waste from residues

: 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.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

TSCA list : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Ethylene oxide	75-21-8	10
1,4-dioxane	123-91-1	100
cyclohexane	110-82-7	1000
sodium hydroxide	1310-73-2	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Ethylene oxide	75-21-8	10

SARA 311/312 Hazards : Skin corrosion or irritation
 Serious eye damage or eye irritation
 Carcinogenicity
 Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

Ozone-Depletion Potential This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65  **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

16. Other information

HMIS Classification

Health	*	3
Flammability		0
Physical Hazard		0
Personal Protection		X

Caution: HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Product name identified and described herein ("Product Name"). This information is not intended to address, nor does it address the use or application of the identified Product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified Product that is believed to be reliable as of the date hereof. Prior to each use of the Product, the user must always read and follow the warnings and instructions on the Product's most current product label, Product Data Sheet, and Safety Data Sheet, which are available at www.floorexpert.com and/or the telephone number listed in Section 1 of this SDS.

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