



Section 1 - Product and Company Identification

Material Name • Silver Shield Premium Aluminum Coating
Chemical Category • Mixture
Product Code • 5181-A-20
Product Description • Asphalt Based Aluminum Reflective Roof Coating
Product Use • Roof Coating

Manufacturer • Gardner-Gibson
4161 E. 7th Avenue
Tampa, FL 33605
United States

Telephone

Technical • 813-248-2101 - Customer Service: 8 AM - 5 PM M-F Eastern Standard Time
Emergency • 800-424-9300 - CHEMTREC
Emergency • 703-527-3887 - CHEMTREC (Outside US)

Last Revision Date • 3/24/2015

Section 2 - Hazards Identification

Signal Word: Warning!

Hazards and Precautions

May be harmful if swallowed. May cause respiratory irritation. Causes eye irritation. Causes mild skin irritation. Contains Petroleum Based Products. Keep away from heat, sparks, and open flame. Use only with adequate ventilation. Avoid prolonged breathing of vapor or spray mist. Keep product closed and properly stored when not in use. Avoid contact with skin. Use protective gloves, safety glasses, and protective clothing when using this product. Do not use in drinking water or food systems. Do not reuse empty container. Make sure container is sealed and secured in an upright position during transportation. Do not eat or drink while using this product and wash hand thoroughly after use.

Prevention Do not handle until all safety precautions have been read and understood. Protect skin from product exposure. Do not ingest. Do not use or apply indoors.

Response IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. If the container is bulging or warm to the touch, there could be a reaction between aluminum component and water. Contact customer service for instruction if this condition is noticed. The reaction can liberate flammable hydrogen gas.



Physical Form • Liquid
Color • Black/Silver
Odor • Mild Hydrocarbon.

- Flash Point** • > 461°F(> 238°C)
- OSHA(HCS2012)** • Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2, Carcinogenicity - Category 1A
- WHMIS** • Other Toxic Effects - D2A
- GHS** • Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2, Carcinogenicity - Category 1A

Potential Health Effects

Inhalation

Acute (Immediate) • May cause irritation.

Chronic (Delayed) • No data available

Skin

Acute (Immediate) • May cause irritation.

Chronic (Delayed) • Repeated and prolonged exposure may cause dermatitis.

Eye

Acute (Immediate) • May cause burning and redness or swelling of the eyes. May cause irritation.

Chronic (Delayed) • Repeated and prolonged exposure may cause irritation.

Ingestion

Acute (Immediate) • May be harmful or fatal if swallowed.

Chronic (Delayed) • No data available

Carcinogenic Effects • See Section 11 - Toxicological Information.

Carcinogenic Effects			
	CAS	IARC	NTP
Sand	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen
Asphalt	8052-42-4	Group 2B-Possible Carcinogen	Under Consideration

Other Information • This product is an encapsulated mixture which reduces the likelihood of exposure to hazardous particulates. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding. During spraying or sanding the product, wear suitable respiratory equipment to protect against inhalation of mist and dust.

Section 3 - Composition/Information on Ingredients

Hazardous Components				
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive
Asphalt	CAS:8052-42-4 UN:NA1999 EINECS:232-490-9	15% TO 35%	Ingestion/Oral-Rat LD50 • >5000 mg/kg	OSHA HCS 1994: Carc.; Irrit. ANSI: Irrit. WHMIS: Other Toxic Effects - D2A UN GHS: Carc. 2; Eye Irrit. 2A; Skin Irrit. 2
Sand	CAS:14808-60-7 EINECS:238-878-4	10% TO 20%		WHMIS: Other Toxic Effects - D2A UN GHS: Carc. 1A; STOT RE 1
Aluminum	CAS:7429-90-5 EINECS:231-072-3	5% TO 15%		OSHA HCS 1994: Irrit.; Pyr.; Water React. UN GHS: Pyr. Sol. 1; Water-react. 2
Bentonite	CAS:1302-78-9 EINECS:215-108-5	1% TO 5%		WHMIS: Other Toxic Effects - D2A UN GHS: STOT RE 2

Non-Hazardous Components				
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive
Water	CAS:7732-18-5 EINECS:231-791-2	50% TO 60%	Ingestion/Oral-Rat LD50 • >90 mL/kg	

This product is an encapsulated mixture which reduces the likelihood of exposure to hazardous particulates. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

- Inhalation** • Remove to fresh air. Call a physician or poison control center. If not breathing, give artificial respiration.
- Skin** • Wash the contaminated area of body with soap and fresh water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Eye** • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.
- Ingestion** • Call a physician or poison control center immediately. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

- Extinguishing Media** • SMALL FIRES: Dry chemical(ABC), CO₂
- Unsuitable Extinguishing Media** • Water can react with aluminum component of this product. It is not expected due to the encapsulation of the component and water-based nature of the product.
- Firefighting Procedures** • Keep unauthorized personnel away. Stay upwind. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.
- Unusual Fire and Explosion Hazards** • Some of these materials may burn, but none ignite readily. May release irritating or toxic gases, fumes, or vapors.
- Hazardous Combustion Products** • Carbon monoxide, carbon dioxide, hydrocarbons.
- Protection of Firefighters** • Wear positive pressure self-contained breathing apparatus (SCBA).
- Flash Point** • > 461°F(> 238°C)
- Explosion Limits** • •
- Upper** • No data available
- Lower** • No data available
- Autoignition Temperature** • No data available

Section 6 - Accidental Release Measures

- Personal Precautions** • Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. If you have not donned special protective clothing approved for this material, do not use or work with product until you have appropriate PPE. Ventilate enclosed areas.
- Emergency Procedures** • Stop leak if you can do it without risk. Isolate the area and contain the spilled material. Persons not wearing the appropriate PPE should be removed from the area until the spill is cleaned up.
- Environmental Precautions** • Avoid run off to waterways and sewers. Do NOT wash away into sewer.
- Containment/Clean-up Measures** • Use appropriate Personal Protective Equipment (PPE) Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container.
- Prohibited Materials** • Avoid contact with strong oxidizing agents and acids.

Section 7 - Handling and Storage

- Handling** • Keep containers tightly closed when not in use. Use only with adequate ventilation.
- Storage** • Keep only in the original container/package in a cool well-ventilated place. Keep away from fire. Keep container closed when not in use. If the container is bulging or warm to the touch, there could be a reaction between aluminum component and water. Contact customer service for instruction if this condition is noticed. The reaction can liberate flammable hydrogen gas.
- Special Packaging Materials** • No data available
- Incompatible Materials or Ignition Sources** • Avoid contact with strong oxidizing agents and acids.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment



- Respiratory** • When used with adequate ventilation, a respirator is not normally required. If required, use a NIOSH-approved air purifying respirator with organic vapor cartridge or supplied air respirator. This product is an encapsulated mixture which reduces the likelihood of exposure to hazardous particulates. Airborne exposures to hazardous dusts or mists may be generated by spraying, sanding or grinding.
- Eye/Face** • Wear ANSI approved safety glasses with side shields or safety goggles.
- Hands** • Wear chemical protective gloves made of Nitrile or Neoprene.
- Skin/Body** • Wear clothing that covers the skin to prevent skin exposure.
- General Industrial Hygiene Considerations** • Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke during work. Wash hands before eating.
- Engineering Measures/Controls** • Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

	Result	Exposure Limits/Guidelines			
		ACGIH	NIOSH	OSHA	United States - California
Aluminum (7429-90-5)	TWAs	1 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable dust)	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	10 mg/m ³ PEL (total dust); 5 mg/m ³ PEL (respirable fraction)
Sand (14808-60-7)	TWAs	0.025 mg/m ³ TWA (respirable fraction)	0.05 mg/m ³ TWA (respirable dust)	Not established	0.3 mg/m ³ PEL (total dust); 0.1 mg/m ³ PEL (respirable dust)
Asphalt (8052-42-4)	TWAs	0.5 mg/m ³ TWA (fume, inhalable fraction, as benzene soluble aerosol)	Not established	Not established	5 mg/m ³ PEL (fume)

Exposure Control Notations

ACGIH

- Asphalt (8052-42-4): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free))
- Aluminum (7429-90-5): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Aluminum as Aluminum insoluble compounds: **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Sand (14808-60-7): **Carcinogens:** (A2 - Suspected Human Carcinogen)

Key to abbreviations

PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)

Section 9 - Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Thick black semi-liquid.
Color	Silver and Black	Odor	Mild Hydrocarbon.
General Properties			
Boiling Point	212°F(100°C)	Melting Point	No data available
Decomposition Temperature	No data available	pH	N/A
Specific Gravity/Relative Density	1.101 Water=1	Density	9.2 lbs/gal
Water Solubility	No data available		
Volatility			
Vapor Pressure	17 @ 77°F(25°C)	Vapor Density	1 Air=1
Evaporation Rate	1 Water = 1	VOC (Vol.)	< 50 g/L
Flammability			
Flash Point	> 461 F(> 238.3333 C)	UEL	No data available
LEL	No data available	Autoignition	No data available
Environmental			

Section 10 - Stability and Reactivity

- Stability** • Stable under normal temperatures and pressures.
- Hazardous Polymerization** • Hazardous polymerization not indicated.
- Conditions to Avoid** • Avoid contact with strong oxidizing agents and acids.
- Incompatible Materials** • Strong oxidizers and acids.
- Hazardous Decomposition Products** • Carbon monoxide, carbon dioxide and hydrocarbons.

Section 11 - Toxicological Information

Component Name	CAS	Data
Asphalt (30% TO 35%)	8052-42-4	Acute Toxicity: orl-rat LD50:>5000 mg/kg; Mutagen: dna-mus-skn 600 mg/kg; Tumorigen/Carcinogen: skn-mus TDLo:130 gm/kg/81W-I
Sand (10% TO 20%)	14808-60-7	Acute Toxicity: orl-rat TDLo:120 gm/kg
Bentonite (1% TO 5%)	1302-78-9	Acute Toxicity: orl-rat TDLo:700 mg/kg/7D-I

- Other Component Information** • IARC has concluded that the following chemicals in this product are carcinogenic to humans(Group 1): silica, quartz. ACGIH has designated the following chemicals in this product as suspected human carcinogens (A2): silica, quartz. NTP has listed the following chemicals in this product as known human carcinogens: silica, quartz. Risk of cancer depends on duration and level of exposure to this product as a dust or aerosol mist. Airborne exposure is not expected with this product. The materials are encapsulated and would only be release if the dry material was sanded. Exposure could increase if the product is sprayed.
- Other Information** • This product contains petroleum asphalt. Petroleum asphalt is not listed as a carcinogen by OSHA or NTP. The National Institute of Occupational Safety and Health (NIOSH), has concluded that at higher temperatures roofing asphalt fumes are a potential occupational carcinogen. If this product is heated or comes in contact with heated material, avoid breathing fumes. This product may contain small amounts of polycyclic aromatic hydrocarbons (PAH's) which are recognized carcinogens in humans and experimental animals. Mouse skin painting studies of roofing asphalt vapor concentrate have shown evidence of tumor formation associated with localized skin irritation in recent studies. Inhalation studies of high airborne concentrations of asphalt/bitumen fumes in rats and mice produced bronchitis, pneumonitis, and lung changes such as fibrosis and cell damage.

Section 12 - Ecological Information

- Ecological Fate** • No data available.
- Persistence/Degradability** • No data available.

Bioaccumulation Potential • No data available.

Mobility in Soil • No data available.

Section 13 - Disposal Considerations

Product • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transportation Information

DOT - United States - Department of Transportation - Shipping Name: Not Restricted

TDG - Canada - Transport of Dangerous Goods - Shipping Name: Not Restricted

IMO/IMDG -International Maritime Transport - Shipping Name: Not Restricted

Section 15 - Regulatory Information

SARA Hazard Classifications • Acute, Chronic

Risk & Safety Phrases • California PROP 65: Asphalt and Asphalt Fumes and airborne particles of sand may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm.

State Right To Know				
Component	CAS	MA	MN	NJ
Water	7732-18-5	No	No	No
Asphalt	8052-42-4	Yes	Yes	Yes
Sand	14808-60-7	Yes	Yes	Yes
Aluminum	7429-90-5	Yes	Yes	Yes
Bentonite	1302-78-9	No	No	No

Inventory			
Component	CAS	EU EINECS	TSCA
Water	7732-18-5	Yes	Yes
Asphalt	8052-42-4	Yes	Yes
Sand	14808-60-7	Yes	Yes
Aluminum	7429-90-5	Yes	Yes
Bentonite	1302-78-9	Yes	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

- Asphalt 8052-42-4 30% TO 35% Not Listed
- Aluminum 7429-90-5 5% TO 15% B6 (powder); Uncontrolled product according to WHMIS classification criteria D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
- Sand 14808-60-7 10% TO 20%
- Bentonite 1302-78-9 1% TO 5% D2A
- Water 7732-18-5 50% TO 60% Uncontrolled product according to WHMIS classification criteria

United States

Environment

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Asphalt 8052-42-4 30% TO 35% Not Listed
- Aluminum 7429-90-5 5% TO 15% 1.0 % de minimis concentration (dust or fume only)
- Sand 14808-60-7 10% TO 20% Not Listed
- Bentonite 1302-78-9 1% TO 5% Not Listed
- Water 7732-18-5 50% TO 60% Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- Asphalt 8052-42-4 30% TO 35% Not Listed
- Aluminum 7429-90-5 5% TO 15% Not Listed
- Sand 14808-60-7 10% TO 20% carcinogen, initial date 10/1/88 (airborne particles of respirable size)
- Bentonite 1302-78-9 1% TO 5% Not Listed
- Water 7732-18-5 50% TO 60% Not Listed

Section 16 - Other Information

Prepared By

- GG Inc.

Last Revision Date

- 3/24/2015

Disclaimer/Statement of Liability

- This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to verify the suitability and completeness of such information for particular use. Gardner-Gibson does not accept liability for any loss or damage that may occur from the use of this information.

NFPA:

