

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD A-150 HD

Section 1: IDENTIFICATION

Product Identifier : Armorseal A-100; Armorseal A-100 HD
Asphalt sealcoat; asphalt sealer

Manufacturer : Cascade Asphalt Sealing Company
6238 South Tacoma Way
Tacoma, Washington 98409-4126

Recommended Use : Used to seal and prolong the life of asphalt parking lots

Telephone Numbers : Emergency Telephone : Chemtrec 1-800-424-9300
Product Information : (800) 846-9125

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION

GHS Classification of the Substance or Mixture

Pictogram : **Signal Word - Warning !**



Hazard Statements : **H316** Causes mild skin irritation - Category 3
H303 May be harmful if swallowed
H320 Causes eye irritation - Category 2B
H333 May be harmful if inhaled - Category 5
H335 May cause respiratory irritation - Category 3
H351 Suspected of causing cancer - Category 2

Risk Phrases : **R36/37/38** Irritating to eyes, respiratory system, and skin

Precautionary Statement : **P260** Do not breathe dust/fume/gas/mist/vapors/spray
P264 Wash hands thoroughly after handling
P271 Use only in a well ventilated area
P280 Wear protective gloves/protective clothing/eye protection/face protection

Safety Phrases : **S24/25** Avoid contact with skin and eyes
S36 Wear suitable protective clothing
S37/39 Wear suitable gloves and eye/face protection
S45 In case of accident or if you feel unwell, seek medical advice immediately

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD

A-150 HD

Health Hazards or Risks From Exposure:

ACUTE

- Eye** : Contact may cause mild irritation including stinging, watering and redness.
- Skin** : Contact may cause mild to moderate skin irritation. Prolonged or repeated contact may worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). Long-term skin exposure can increase sensitivity to the sun and cause discoloration. No harmful effects from skin absorption are expected.
- Inhalation** : Vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing.
- Ingestion** : Ingestion may cause stomach discomfort.
- Delayed or Other Health Effects** : May cause cancer

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS #	Weight %
Asphalt Emulsion Base (Asphalt 100%)	8052-42-4	25-35 %
Slate, Crushed (Crystalline Silica 30-50%)	14808-60-7	25-35 %
Suspension Agent (Clay >95%; Crystalline Silica <3%)	63800-37-3 14808-60-7	2.5-7.5 %
Balance Water	7732-18-5	25-40 %
Proprietary components present at less than 1% each		

Section 4: FIRST-AID MEASURES

- Eyes** : If irritation or redness develops from exposure to fumes, move victim away from exposure and into fresh air. Remove contact lenses. For contact with the material, hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.
- Skin** : Wear protective gloves to minimize skin contamination. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. As a precaution, remove clothing and shoes if contaminated. Discard contaminated clothing or thoroughly clean before reuse.
- Ingestion** : Do not induce vomiting due to danger of aspirating liquid into lungs. Gastric lavage may be required. Never give anything by mouth to an unconscious person. As a precaution, get medical advice.
- Inhalation** : If respiratory symptoms develop from exposure to fumes, move victim away from source of exposure and into fresh air. If not breathing, give artificial respiration. If breathing is difficult, get medical attention as soon as possible.

Section 5: FIRE-FIGHTING MEASURES

- Fire Classification** : Not a flammable or combustible liquid
- NFPA Rating System** : Health: 1 Flammability: No Data Available Reactivity: 0
- Effective Date: 9/10/15

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD

A-150 HD

- Extinguishing Media** : Dry chemical, carbon dioxide, water fog or foam.
- Specific Hazards** : In a fire, hazardous fumes, decomposition products or residues may be produced. Combustion products may include: carbon monoxide, carbon dioxide and oxides of nitrogen and sulfur. Burning of product may release hydrogen sulfide gas.
- Protective Equipment or Precautions** : This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Section 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions** : Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Use personal protective equipment.
- Protective Measures** : Eliminate all sources of ignition in vicinity of spilled material.
- Spill Management** : Stop source of release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible.
- Methods for Cleaning Up** : Dam up. Absorb with inert material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Section 7: HANDLING AND STORAGE

- Handling** : Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink, or smoke while handling this product. Wash thoroughly after handling. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location.
- Storage** : Do not use or store near heat, sparks or open flame. Store only in a well ventilated area. Keep container closed when not in use. Do not store container in direct sunlight or above 100 F.
- Incompatible Products**: Strong oxidizing agents. Acids.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits/Guidelines:

Chemical Name	ACGIH TLV	OSHA PEL
Asphalt 8052-42-4	TWA: 0.5 mg/m ³ (Inhalable)	-
Silica, Crystalline 14808-60-7	0.025 mg/m ³ (Respirable)	10 + [% quartz + (% cristobalite x 2) + (% tridymite x 2) + 2] (Respirable)
Clay 63800-37-3	10 mg/m ³ (Inhalable)	15 mg/m ³ (Total) 5 mg/m ³ (Respirable)
Cellulose 9004-34-6	TWA: 10 mg/m ³ (Total)	TWA: 15 mg/m ³ (Total) TWA 5 mg/m ³ (Respirable)

Engineering Controls : Use in a well ventilated area. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

Personal Protective Equipment:

Eyes/Face : Where contact with this material is likely, eye protection is recommended. Use safety glasses

Effective Date: 9/10/15

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD

A-150 HD

with side shields. Wear ANSI approved eye protection.

- Skin/Body** : Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.
- Respiratory** : No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
- Hygiene Measures** : Handle in accordance with good industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	: Viscous Liquid
Appearance/Color	: Brown to Black
Odor	: Asphaltic
Odor Threshold	: Mild
pH	: No data available
Melting Point/Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Evaporation Rate	: No data available
Flammability	: No data available
Upper/lower Flammability or Explosive Limits	: No data available
Vapor Pressure	: No data available
Vapor Density	: No data available
Specific Gravity	: No data available
Solubility	: No data available
Auto-Ignition Temperature	: No data available
Decomposition Temperature	: No data available
Viscosity	: No data available

Section 10: STABILITY AND REACTIVITY

Chemical Stability	: Stable under recommended storage and handling conditions.
Hazardous Decomposition Products	: Carbon Monoxide, Carbon Dioxide, Nitrogen Dioxide. Heating may produce Hydrogen Sulfide.
Possibility of Hazardous Reactions	: None under normal processing.
Incompatibility	: Strong oxidizing agents. Acids.
Hazardous Polymerization	: Hazardous polymerization will not occur.
Conditions to Avoid	: Avoid extreme temperatures.

Section 11: TOXICOLOGICAL INFORMATION

Toxicity Data : Toxicity data is not available for mixture

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat)	LC50 Inhalation (Rat)
Asphalt 8052-42-4	5001 mg/kg	2001 mg/kg	-
Silica, Crystalline	ND	ND	ND

Effective Date: 9/10/15

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD A-150 HD

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat)	LC50 Inhalation (Rat)
14808-60-7			
Clay 63800-37-3	ND	ND	ND
Cellulose 9004-34-6	ND	ND	5800 mg/m ³ 4 Hr Rat

Carcinogenicity : Suspected Cancer Agent. Product may contain an ingredient(s) that is found on one or more of the following lists:

Chemical Name	ACGIH	IARC	NTP	OSHA
Asphalt	A3	Group 2B	Reasonably Anticipated	X

ACGIH (American Conference of Governmental Industrial Hygienists) A3 - Animal Carcinogen
IRAC (International Agency for Research on Cancer) Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicity Program) Reasonable Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety & Health Administration) X-Carcinogen

Section 12: ECOLOGICAL INFORMATION

- Ecotoxicity** : This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water. The environmental impact of this product has not been fully investigated.
- Bioaccumulation** : This product is estimated to have a slow rate of biodegradation. This product is not expected to bioaccumulate through food chains in the environment.
- Other Adverse Effects** : No information available.

Section 13: DISPOSAL CONSIDERATIONS

- Waste Disposal** : Dispose of waste according to local, state/provincial, and federal requirements. Avoid disposal into wastewater treatment facilities.
- Contaminated Materials** : Treat as product waste.
- Container Disposal** : Do not re-use empty containers.

Section 14: TRANSPORTATION INFORMATION

- DOT** : Not Regulated as a hazardous material for transport

Section 15: REGULATORY INFORMATION

- SARA 311/312 Categories** :
- | | |
|-----------------------------------|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Section 16: OTHER INFORMATION

This SDS is intended solely for safety education and not for use as specifications or warranties. The information in this SDS was obtained from usually reliable sources and is provided without any representation for warranties regarding the accuracy

SAFETY DATA SHEET

Armorseal A-100; Armorseal A-100 HD

A-150 HD

or correctness. Since the handling, use, and storage is beyond our control, Cascade Asphalt Sealing Company assumes no responsibility and disclaims liability for any loss, damage, or expense arising therefrom.

ABBREVIATIONS:

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstract Services (identifies specific chemical)
CO	Carbon Monoxide
DOT	Department of Transportation
EPA	Environmental Protection Agency
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
IARC	International Agency for Research on Cancer
IDLH	Immediately dangerous to life or health
LC50	Lethal concentration - the concentration of a material in air which causes the death of 50% (one half) of a group of test animals
LD50	Lethal dose - the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals
mg/m ³	Milligrams per cubic meter
mg/kg	Milligrams per kilogram
MSHA	Mine Safety Health Act
NA	Not applicable
ND	Not determined
NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	OSHA Permissible Exposure Limit
ppm	Parts per million
SARA	Superfund Amendments and Reauthorization Act (US EPA)
SDS	Safety Data Sheet
TLV	Threshold Limit Value
TWA	8-hour time-weighted average exposure

Note: Cascade Asphalt Sealing Company periodically updates and revises its product information. To verify this information, please call the number listed in Section 1.