



SECTION 1

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ARMORSEAL A-100; ARMORSEAL A-100 HD
PRODUCT USE: Used to seal and prolong the life of asphalt parking lots
MANUFACTURER: Cascade Asphalt Sealing Company
Address: 6238 South Tacoma Way
Web Site: www.armorseal.com
Tel: +253-475-4910
EMERGENCY: Chemtrec 1-800-424-9300

SECTION 2

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: **CAUTION**
MAY CAUSE IRRITATION TO EYES, SKIN AND RESPIRATORY SYSTEM. May Cause the Depression of the Central Nervous System. Contains a Known or Suspected Carcinogen.

APPEARANCE: Brownish Black
PHYSICAL STATE: Liquid
ODOR: Asphaltic

POTENTIAL FOR HEALTH RISKS: **PRINCIPAL ROUTES OR EXPOSURE**
Skin Contact, Inhalation, Ingestion, Eye Contact.

POTENTIAL ROUTES FOR EXPOSURE: **ACUTE TOXICITY**

Eye: May cause eye irritation.
Skin: May cause mild skin irritation.
Inhalation: May cause reparatory tract irritation.
Ingestion: May cause stomach distress, nausea or vomiting.
Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Aggravated Medical Conditions: May aggravate pre-existing eye disorders, skin disorders, Central Nervous System, and respiratory disorders.

Target Organs: Skin, Eyes, Gastrointestinal Tract, and Respiratory System.

Potential Environmental Effects: May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.



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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)	63800-37-3 14808-60-7	2.5-7.5%
Balance Water	7732-18-5	5-40%
Proprietary components present at less than 1% each		

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

SECTION 4

FIRST AID MEASURES

- Eye Contact :** 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 Contact:** 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.
- 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.
- Ingestion:** DO NOT INDUCE VOMITING if swallowed, unless directed to do so by emergency medical personnel. Call a physician or poison control center immediately. Never give anything to an unconscious person by mouth. May cause nausea, cramps, vomiting, diarrhea or acute effects.
- General Advice:** In case of injury, accident or if you feel ill while in close contact with this material, seek medical advice immediately. Show the label or SDS to the physician.
- Note to Physician:** Symptoms may not appear immediately. Treat symptomatically.



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SECTION 5

FIRE FIGHTING MEASURES

Flammability Properties:	Not Flammable by WHMIS or OSHA criteria.
Flash Point:	>200°F / 93.3°C
Hazardous Combustion Products:	Carbon Monoxide (CO), Carbon Dioxide (CO ₂), Hydrocarbon compounds, Nitrogen Oxides (NO _x).
Methods of Extinguishing:	
Suitable Extinguishing Media:	Foam, Dry Chemical, CO ₂ , and water spray.
Unsuitable Extinguishing Media:	Do not spread spilled material with <i>high-pressure</i> water spray.
Explosion Data,	
Sensitivity to Mechanical Impact:	None
Sensitivity to Electrical Discharge:	None
Protective Equipment and Precautions for Fire Fighters:	Avoid inhalation of vapors and combustion by-products. Wear full fire fighting turn-out gear with self-contained breathing apparatus pressure demand, MSHA/NIOSH approved (or equivalent). Keep upwind of fire.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Isolate the hazard area and do not allow the entry of the unnecessary and unprotected personnel. Wear personal protection recommended in section 8. Avoid contact with skin, eyes and clothing.
Environmental Precautions:	Keep product from being released into the environment. Keep out of drains, waterways, sewers and ditches. Contain and pick up waste material. Minimize use of water to clean up contamination. Put waste in a sealed approved container. Dispose of in accordance with federal, state, and local regulations.
Methods of Containment:	For smaller spills, absorb with an inert material and place in containers. For large spills, contain material with a dike and pump into tanks or other suitable containers.
Methods for Clean Up:	For smaller spills, place contaminated inert material in containers. For large spills, pump dammed material into tanks or soak up material and place in suitable containers

SECTION 7

HANDLING AND STORAGE

Handling:	Wear suitable protective equipment; clothing, gloves and eye / face protection and avoid contact with skin, eyes and clothing. Do not breath gas/fumes/spray. Handle and open containers with care and in a well ventilated area. Do not eat drink or smoke while working with this material. Wash hands before eating, drinking or smoking after working with this material. To reduce sun sensitivity while working with this material a sun blocking lotion (SPF +15 or higher) can be applied to exposed skin. Do not apply blocker lotions once exposure has occurred.
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Storage: Do not allow the product to freeze. Keep product containers tightly closed. Keep out of the reach of children. Keep products in locked storage areas if possible. Store in cool well ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Do not store in temperatures exceeding 120°F (49°C).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

<u>Chemical Name</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Asphalt 8052-42-4	TWA: 0.5 MG/M3 (Inhalable)	-
Silica, Crystalline 14808-60-7	0.025 mg/m3 (Respirable)	10 + [% quartz + (% cristobalite x 2)+(% tridymite x 2) + 2] (Respirable)
Clay 63800-37-3	10 mg/m3 (Inhalable)	15 mg/m3 (Total) 5 mg/m3 (Respirable)
Cellulose 9004-34-6	TWA: 10 mg/m3 (Total)	TWA: 15 mg/m3 (Total) TWA 5 mg/m3 (Respirable)

Engineering Measures: Use proper ventilation to keep exposures (airborne vapors, fumes, dust levels) below exposure limits. Showers, eye wash stations should be available.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Tightly fitting safety goggles, with side shields.

Skin and Body Protection: Impervious butyl rubber gloves, chemical resistant apron, boots.

Respiratory Protection: If irritation is experienced or ventilation is limited, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided according to local current regulations.

Hygiene Measures: Do not eat drink or smoke while working with this material. Wash hands before eating, drinking or smoking after working with this material. Regular cleaning of equipment, work area and clothing is required.



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<p>APPEARANCE.....Heavy Bodied Chocolate Brown Liquid ODOR THRESHOLD.....Mild Ph LEVELSN/A FLASH POINT.....N/A DECOMPOSITION TEMP. ..N/A MELTING POINT/RANGE ..N/A FLAMMABILITY LIMITSN/A SPECIFIC GRAVITYN/A SOLUBILITYN/A VAPOR PRESSUREN/A</p>	<p>ODOR Asphaltic PHYSICAL STATE Liquid AUTOIGNITION TEMP Not Available BOILING POINT (F/C)..... N/A EXPLOSION LIMITS 1 (Water = 1) WATER SOLUBILITY Partly Soluble EVAPORATION RATE.... Not Available VAPOR DENSITY 1 (Air = 1) FREEZING POINT..... 32°F / 0°C MISCIBILITY..... Dilutable with water</p>
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Abbreviations: N/A= Not Available N.AP= Not Applicable

SECTION 10 STABILITY AND REACTIVITY

Stability:	Stable under recommended storage and handling conditions
Incompatibility Materials:	Strong Oxidizing Agents.
Conditions to avoid:	Avoid extreme temperatures.
Hazardous Decomposition Products:	May include, and are not limited to: Carbon monoxide (CO), carbon dioxide (CO ₂), nitrogen dioxide. Heating may produce Hydrogen Sulfide.
Hazardous Polymerization:	Does not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

TOXICITY DATA : Toxicity data is not available for mixture

<u>Chemical Name</u>	<u>LD50 Oral (RAT)</u>	<u>LD50 Dermal (Rat)</u>	<u>LC50 Inhalation (RAT)</u>
Asphalt 8052-42-4	5001 mg/kg	2001 mg/kg	-
Silica, Crystalline 14808-60-7	ND	ND	ND
Clay 63800-37-3	ND	ND	ND



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Cellulose 9004-34-6	ND	ND	5800 mg/m ³ 4 Hr Rat
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Carcinogenicity: Suspected Cancer Agent. Product may contain an ingredient(s) that is found on one or more of the following lists:

<u>Chemical Name</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Asphalt	A3	Group 2B	Reasonably Anticipated	X

- Eyes:** May cause eye irritation. Symptoms may include discomfort and pain, excess blinking and tears, redness and swelling
- Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Inhalation:** May cause respiratory tract irritation.
- Ingestion:** May be harmful if swallowed and cause stomach distress, nausea or vomiting.

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:** May cause long term effects in the aquatic environment.
- Persistence/Degradability:** Not Available.
- Bioaccumulation/Accumulation:** Not Available.
- Mobility in the Environment:** Not Available.

SECTION 13 **DISPOSAL CONSIDERATION**

Disposal Instructions: This material must be disposed of in accordance with local, state, provincial and federal regulations. This material has not been classified as hazardous waste according to federal regulations (40 CFR 261). This material could become a hazardous waste if chemical additions are made, or if this material is processed or otherwise altered.



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Empty Containers: Do not re-use empty containers.
Contaminated materials: Treat as product waste.

SECTION 14

TRANSPORTATION INFORMATION

DOT: Not regulated.
TDG: Not regulated.
MEX: Not regulated.

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

Disclaimer: 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 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.

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SECTION 17

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



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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/m³ 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.

- END OF SDS -