



Section 1 - Product and Company Identification

Material Name • ArmorFlex AB – Asphalt Based Thermoplastic Surfacing Compound

Chemical Category • Mixture

Product Code • AP-5255

Product Description • Black, non-fibered liquid asphalt roof foundation coating.

Manufacturer • APOC

4161 E. 7th Avenue
Tampa, FL 33605

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)

Section 2 - Hazards Identification

GHS HAZARDS AND PRECAUTIONS

SIGNAL WORD: WARNING!

Flammable liquid and vapor. Contains Combustible Petroleum Distillates. Harmful or Fatal if swallowed. Keep away from heat, sparks, and open flame. Avoid prolonged breathing of vapor and use only in adequate ventilation. Repeated and prolonged overexposure to solvent vapor may cause brain and nervous system damage, respiratory tract irritation, dizziness, or loss of consciousness. May cause skin and eye irritation.

Prevention Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Keep out of reach of children. Keep container tightly closed.

Response IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.



Physical Form • Liquid

Color • Black

Odor • Petroleum Hydrocarbon / Solvent odor.

Flash Point • 105°F(40.5°C) CC (Closed Cup)

UEL • 6 %

LEL • 0.9 %

OSHA(HCS2012) • Flammable Liquids - Category 3, Specific Target Organ Toxicity Repeated Exposure - Category 2,

Skin Corrosion/Irritation - Category 3, Serious Eye Damage, Eye Irritation - Category 2B

Potential Health Effects

Inhalation:

Acute (Immediate) • Excessive breathing of high vapor concentration can cause possible unconsciousness and even asphyxiation.

Chronic (Delayed) • Refer to other information found in Section 11-Toxicology.

Skin:

Acute (Immediate) • May cause irritation.

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

Eye:

Acute (Immediate) • Causes eye 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 • This product or one of its ingredients present at 0.1% or more is listed as a carcinogen by NTP, IARC or OSHA. See Section 11 - Toxicological Information for more details. See Section 11 - Toxicological Information.

Carcinogenic Effects			
	CAS	IARC	NTP
Asphalt	8052-42-4	Group 2B-Possible Carcinogen	Under Consideration

See Section 12 for Ecological Information.

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	50% TO 70%	Ingestion/Oral-Rat LD50 • >5000 mg/kg Inhalation-Rat LC50 • >94.4 mg/m ³	UN GHS: Carc. 2; Eye Irrit. 2A; Skin Irrit. 2
Mineral Spirits	CAS:8052-41-3 EINECS:232-489-3	15% TO 25%		EU DSD/DPD: Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
Solvent naphtha (petroleum), light aromatic	CAS:64742-95-6 EINECS:265-199-0	10% TO 20%		UN GHS: Asp. Tox. 1; Carc. 1B EU DSD/DPD: Carc.Cat.2; R45Muta.Cat.2; R46Xn; R65
SBS Polymer	CAS:9003-55-8	5% TO 15%		
Benzene, 1,3,5-trimethyl	CAS:108-67-8 EINECS:203-604-4	1% TO 5%		EU DSD/DPD: R10 Xi; R37 N; R51 R53
1,2,4-Trimethylbenzene	CAS:95-63-6 EINECS:202-436-9	0.1% TO 0.5%	Ingestion/Oral-Rat LD50 • 5 g/kg Inhalation-Rat LC50 • 18000 mg/m ³ 4 Hour(s)	

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 breathing is difficult, give oxygen. If not breathing, give artificial respiration.
- Skin** • IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing and shoes. Wash clothing before reuse.
- 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. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Never give anything by mouth to an unconscious person.
- Antidotes** • No information, consult physician.
- Notes to Physician** • Aspiration of liquid into the lungs during swallowing or vomiting can cause lung inflammation, serious lung damage and even death from chemical pneumonitis.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

- Extinguishing Media** • Use CO₂, dry chemical, or foam.
- Unsuitable Extinguishing Media** • Do not use halogenated extinguishing agents.
- Firefighting Procedures** • Fight advanced or massive fires from safe distance or protected location. Avoid water in a straight hose stream as the stream will cause splatter and spread fire. If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and can be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.
- Unusual Fire and Explosion Hazards** • Combustible liquid. May release irritating or toxic gases, fumes, or vapors. Vapors may travel to source of ignition and flash back. Containers may explode when heated.
- Hazardous Combustion Products** • Carbon monoxide, carbon dioxide, hydrocarbons.
- Protection of Firefighters** • Fire fighters should wear complete protective clothing including self-contained breathing apparatus.
- Flash Point** • 105°F(40.5°C) CC (Closed Cup)
- Explosion Limits** • •
- Upper** • 6 %
- Lower** • 0.9 %
- Autoignition Temperature** • 450°F(232°C)

Section 6 - Accidental Release Measures

- Personal Precautions** • Do not handle damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation to remove vapors, fumes, dust etc. Stay upwind.
- Emergency Procedures** • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) 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. Ventilate closed spaces before entering.
- Environmental Precautions** • Prevent entry into waterways, sewers, basements or confined areas. Do NOT wash away into sewer.
- Containment/Clean-up Measures** • Contain and recover liquid when possible. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container. Do not flush to sewer or allow to enter

waterways. Do not use water to flush spill area. Use appropriate Personal Protective Equipment (PPE).

Prohibited Materials • Avoid contact with strong oxidizing agents or bases.

Section 7 - Handling and Storage

- Handling** • KEEP OUT OF THE REACH OF CHILDREN! Keep away from heat, sparks, and flame – No Smoking. Keep containers tightly closed when not in use. Use only in well ventilated areas. Protect building inlets from fumes and vapors when working on roofs.
- Storage** • Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources. Keep away from incompatible materials. Do not store and transport with oxidizers, acids, etc. Keep container tightly closed.
- Special Packaging Materials** • Not Applicable.
- Incompatible Materials or Ignition Sources** • Avoid contact with strong oxidizing agents.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment

Pictograms



- 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.
- 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. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.
- Engineering Measures/Controls** • Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Use precaution to protect building intake from fumes and vapors created outdoors.
- Exposure Limits/Guidelines** • Refer to listed exposure limits in state information of this section.

Exposure Limits/Guidelines					
	Result	Canada Ontario	Mexico	OSHA	United States - California
Mineral spirits (8052-41-3)	TWAs	525 mg/m ³ TWA (140°C Flash aliphatic solvent)	100 ppm TWA LMPE-PPT; 523 mg/m ³ TWA LMPE-PPT	500 ppm TWA; 2900 mg/m ³ TWA	100 ppm PEL; 525 mg/m ³ PEL
Asphalt (8052-42-4)	TWAs	0.5 mg/m ³ TWA (fume, inhalable, as Benzene-soluble aerosol)	5 mg/m ³ TWA LMPE-PPT	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))

Section 9 - Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Thick black semi-liquid.
Color	Black	Odor	Petroleum Hydrocarbon / Solvent odor.

General Properties

Boiling Point	315 to 550 F(157.2222 to 287.7778 C)	Melting Point	No data available
pH	No data available	Specific Gravity/Relative Density	0.937 Water=1
Density	~7.8 lbs/gal	Water Solubility	No data available
Viscosity	See TDS		
Volatility			
Vapor Pressure	2 mmHg (torr) @ 68 F(20 C)	Vapor Density	4.9 Air=1
Evaporation Rate	1 Ether = 1	VOC (Vol.)	< 400 g/L
Flammability			
Flash Point	105°F(40.55°C) CC (Closed Cup)	UEL	6 %
LEL	0.9 %	Autoignition	450°F(232.2222 C)

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 flame.
- Incompatible Materials** • Strong oxidizers.
- Hazardous Decomposition Products** • Carbon monoxide, carbon dioxide and hydrocarbons.

Section 11 - Toxicological Information

Component Name	CAS	Data
Asphalt (50% TO 70%)	8052-42-4	Acute Toxicity: orl-rat LD50:>5000 mg/kg; ihl-rat LC50:>94.4 mg/m3; Tumorigen/Carcinogen: skn-mus TDLo:905 gm/kg/2Y-I
Mineral spirits (15% TO 25%)	8052-41-3	Acute Toxicity: orl-rat LD :>5 gm/kg; ihl-rat LC50:>1400 ppm/8H; Irritation: eye-hmn 100 ppm MLD
Solvent naphtha (petroleum), light aromatic (10% TO 20%)	64742-95-6	Acute Toxicity: orl-qal LD50:>2150 mg/kg; orl-rat LD50:8400 mg/kg
Benzene, 1,3,5-trimethyl (1% TO 5%)	108-67-8	Acute Toxicity: orl-rat LD50:5000 mg/kg; ihl-rat TLo:100 ppm/6H/20D-I; Irritation: skn-rbt 20 mg/24H MOD

- 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.

- 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 in accordance with applicable federal, state, and local government regulations. Do not allow into any sewer on the ground, or into any body of water.

Section 14 - Transportation Information

DOT: Combustible Liquid, UN1993; Hazard Class:3; Packing Group: III DOT: **Not restricted** if shipped in containers <450L (119 gallons) Restricted if shipped in containers >450L (119 gallons)

TDG - Canada Transportation of Dangerous Goods: Tars, Liquids; UN1999; Hazard Class: 3; Packing Group: III

IMO/IMDG –International Maritime Transport • TARS, LIQUID; UN1999; Hazard Class: 3; Packing Group: III –IMDG Code 2.3.2.5 - exempted from marking, labeling & testing of packages.

IATA - International Air Transport Association - TARS, LIQUID; UN1999; Hazard Class: 3; Packing Group: III.

Section 15 - Regulatory Information

SARA Hazard Classifications • Acute, Chronic

Risk & Safety Phrases • California PROP 65: Asphalt and Asphalt Fumes 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	NJ
Asphalt	8052-42-4	Yes	Yes
mineral spirits	8052-41-3	Yes	Yes
Solvent naphtha (petroleum), light aromatic	64742-95-6	No	No
SBS Polymer	9003-55-8	No	No
Benzene, 1,3,5-trimethyl	108-67-8	Yes	No
1,2,4-Trimethylbenzene	95-63-6	Yes	Yes

Inventory		
Component	CAS	TSCA
Asphalt	8052-42-4	Yes
mineral spirits	8052-41-3	Yes
Solvent naphtha (petroleum), light aromatic	64742-95-6	Yes
Benzene, 1,3,5-trimethyl	108-67-8	Yes
1,2,4-Trimethylbenzene	95-63-6	Yes

United States

Environment

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

•Asphalt	8052-42-4	50% TO 70%	Not Listed
•1,2,4-Trimethylbenzene	95-63-6	0.1% TO 0.5%	1.0 % de minimis concentration
•Solvent naphtha (petroleum), light aromatic	64742-95-6	10% TO 20%	Not Listed
•mineral spirits	8052-41-3	15% TO 25%	Not Listed
•Benzene, 1,3,5-trimethyl	108-67-8	1% TO 5%	Not Listed
•SBS Polymer	9003-55-8	5% TO 15%	Not Listed

Section 16 - Other Information

Prepared By • GG Inc.

Last Revision Date

- 5/27/2015

**Disclaimer/Statement
of Liability**

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