

## Section 1 - Product and Company Identification

<b>Material Name</b>	- <b>LionGuard Modified Adhesive</b>
<b>Chemical Category</b>	- Mixture
<b>Product Code</b>	- LG-9365
<b>Product Description</b>	- Polymer Modified Roofing Adhesive.
<b>Product Use</b>	- Cold Applied Roofing Adhesive.
<b>Manufacturer</b>	- APOC - 4161 E. 7th Avenue Tampa, FL 33605 United States
<b>Telephone</b>	
<b>General/Technical</b>	- 813-248-2101 – Customer Service: 8AM – 5 PM M-F Eastern Standard Time
<b>Emergency</b>	- 800-424-9300 - CHEMTREC
<b>Emergency</b>	- 703-527-3887 – CHEMTREC (Outside US)
<b>Last Revision Date</b>	- 7/31/2015

## 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.*

<b>Prevention</b>	Avoid breathing fume, gas, mist, vapors and/or spray. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. Use personal protective equipment as required. Keep out of reach of children.
<b>Response</b>	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.
<b>Storage/Disposal</b>	Store in a closed container. Store in a well-ventilated place. Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.



<b>Physical Form</b>	- Liquid
<b>Color</b>	- Black
<b>Odor</b>	- Mild Hydrocarbon.
<b>Flash Point</b>	- 105°F(40.55°C)
<b>OSHA(HCS2012)</b>	- Flammable Liquids - Category 3, Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A
<b>WHMIS</b>	- Class B - Flammable and Combustible Materials - Division 3, Class D - Poisonous and Infectious Materials - Division 2 - Subdivision A, Class D - Poisonous and Infectious Materials - Division 2 - Subdivision B



**GHS**

- R65, R25, R45
- Flammable Liquids - Category 3, Specific Target Organ Toxicity Repeated Exposure - Category 2, Skin Corrosion/Irritation - Category 2, Serious Eye Damage, Eye Irritation - Category 2A, Carcinogenicity - Category 1A
- Inhalation, Skin, Eye, Ingestion/Oral

**Route Of Entry**

**Potential Health Effects**

**Inhalation**

**Acute (Immediate)**

- May cause irritation. 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 cause dermatitis.

**Eye**

**Acute (Immediate)**

- May cause irritation.

**Chronic (Delayed)**

- Repeated and prolonged exposure may cause irritation.

**Ingestion**

**Acute (Immediate)**

- May be harmful or fatal if swallowed.

**Chronic (Delayed)**

- Repeated and prolonged exposure may be harmful.

**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.

**Carcinogenic Effects**

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

**Section 3 - Composition/Information on Ingredients**

**Hazardous Components**

Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	Classifications According to Regulation/Directive
Asphalt	8052-42-4	50% TO 70%	NA1999, 232-490-9	Ingestion/Oral-Rat LD50 · >5000 mg/kgInhalation-Rat LC50 · >94.4 mg/m <sup>3</sup>	<b>WHMIS:</b> Other Toxic Effects - D2A <b>UN GHS:</b> Carc. 2; Eye Irrit. 2A; Skin Irrit. 2 <b>EU DSD/DPD:</b>
Mineral Spirits	8052-41-3	15% TO 30%	232-489-3		<b>EU DSD/DPD:</b> Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65
Hydrated aluminium-magnesium silicate	12174-11-7	5% TO 10%			<b>WHMIS:</b> Other Toxic Effects - D2A <b>UN GHS:</b> Carc. 2; STOT RE 2 <b>EU DSD/DPD:</b> Carcinogen 2(Carc.Cat.2); R49; Toxic(T)
Bentonite	1302-78-9	1% TO 5%	215-108-5		<b>WHMIS:</b> Other Toxic Effects - D2A <b>UN GHS:</b> STOT RE 2
Cellulose	9004-34-6	1% TO 5%	232-674-9	Ingestion/Oral-Rat LD50 · >5 g/kgInhalation-Rat LC50 · >5800 mg/m <sup>3</sup> 4 Hour(s)Skin-Rabbit LD50	<b>WHMIS:</b> Other Toxic Effects - D2B <b>UN GHS:</b> Eye Irrit. 2A; Skin Irrit. 2 <b>EU DSD/DPD:</b>

### Hazardous Components

Chemical Name	CAS	%(wt)	UN;EINECS	LD50/LC50	Classifications According to Regulation/Directive
				· >2 g/kg	
Solvent naphtha (petroleum), light aromatic	64742-95-6	1% TO 5%	265-199-0		<b>UN GHS:</b> Asp. Tox. 1; Carc. 1B <b>EU DSD/DPD:</b> Carc.Cat.2; R45Muta.Cat.2; R46Xn; R65
Styrene/Butadiene Polymer	9003-55-8	1% TO 5%			NDA
Quartz	14808-60-7	1% TO 2%	238-878-4		<b>UN GHS:</b> Carc. 1A; STOT RE 1 <b>EU DSD/DPD:</b> Carcinogen 1(Carc.Cat.1); R49
1,2,4-Trimethylbenzene	95-63-6	0.5% TO 1.5%	202-436-9	Ingestion/Oral-Rat LD50 · 5 g/kg Inhalation-Rat LC50 · 18000 mg/m <sup>3</sup> 4 Hour(s) Ingestion/Oral-Mouse LD50 · 6900 mg/kg	<b>UN GHS:</b> Acute Tox. 4 (Inhalation); Aquatic Chronic 2; Flam. Liq. 3; Eye Irrit. 2A; Skin Irrit. 2; STOT RE 2; STOT SE 2 <b>EU DSD/DPD:</b> R10Xn; R20Xi; R36/37/38N; R51 R53
Benzene, 1,3,5-trimethyl	108-67-8	0.5% TO 1.5%	UN2325, 203-604-4		<b>EU DSD/DPD:</b> R10 Xi; R37 N; R51 R53

**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**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Get medical attention immediately.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
- Eye**
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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.

See Section 2 for Potential Health Effects.

### Section 5 - Fire Fighting Measures

- Extinguishing Media**
- Use CO<sub>2</sub>, dry chemical, or foam.
- Unsuitable Extinguishing Media**
- Do not use direct stream of water.
- 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 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.
- Hazardous Combustion Products**
- Carbon monoxide, carbon dioxide, hydrocarbons.

- Protection of Firefighters** - Firefighters should wear self-contained breathing apparatus and full protective gear.
- Flash Point** - 105°F(40.55°C) CC (Closed Cup)
- Explosion (Flammable) Limits**
- Upper** - 6 %
- Lower** - 0.9 %

## Section 6 - Accidental Release Measures

- Personal Precautions** - Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stay upwind. Ventilate the area before entry.
- Emergency Procedures** - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so 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. Keep unauthorized personnel away.
- Environmental Precautions** - Prevent entry into waterways, sewers, basements or confined areas.
- Containment/Clean-up Measures** - Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container. Use appropriate Personal Protective Equipment (PPE).
- Prohibited Materials** - Avoid contact with strong oxidizing agents and acids.

## Section 7 - Handling and Storage

- Handling** - KEEP OUT OF THE REACH OF CHILDREN! Keep away from heat, sparks, and flame – No Smoking. Use only with adequate ventilation.
- Storage** - Store in a well-ventilated place. Keep container tightly closed. No open flames, no sparks and no smoking.
- 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 Pictograms



- Respiratory** - In case of insufficient ventilation, wear suitable respiratory equipment. If listed exposure limits are expected to be exceeded, use approved respiratory protection suitable for the hazard. 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. When using do not smoke, eat, or drink.
- 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**

	Result	ACGIH	Canada Ontario	Mexico	OSHA	United States - California
Cellulose (9004-34-6)	TWAs	10 mg/m3 TWA	10 mg/m3 TWAEV (paper fibre, total dust)	10 mg/m3 TWA	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	10 mg/m3 PEL (total dust); 5 mg/m3 PEL (respirable fraction)
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.10 mg/m3 TWAEV (designated substance regulation)	0.1 mg/m3 TWA (respirable fraction)	Not established	0.3 mg/m3 PEL (total dust); 0.1 mg/m3 PEL (respirable dust)
Mineral Spirits (8052-41-3)	TWAs	100 ppm TWA	525 mg/m3 TWAEV	100 ppm TWA; 523 mg/m3 TWA	500 ppm TWA; 2900 mg/m3 TWA	100 ppm PEL; 525 mg/m3 PEL
Asphalt (8052-42-4)	TWAs	0.5 mg/m3 TWA (as benzene soluble aerosol, fume, inhalable fraction)	0.5 mg/m3 TWAEV (fume, inhalable, as benzene-soluble aerosol)	5 mg/m3 TWA	Not established	5 mg/m3 PEL (fume)

**Exposure Control Notations**

**ACGIH**

- Asphalt (8052-42-4):Carcinogens:A4 - Not Classifiable as a Human Carcinogen (fume, coal tar-free)
- Quartz (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**

<b>Physical Form:</b>	Liquid	<b>Appearance/Description:</b>	Thick black semi-liquid.
<b>Color:</b>	Black	<b>Odor:</b>	Mild Hydrocarbon.
<b>Taste:</b>	No data available.	<b>Particulate Type:</b>	Not relevant
<b>Particulate Size:</b>	N/A	<b>Aerosol Type:</b>	Not relevant
<b>Odor Threshold:</b>	N/A	<b>Boiling Point:</b>	310 to 400 F(154.4444 to 204.4444 C)
<b>Melting Point:</b>	N/A	<b>Decomposition Temperature:</b>	N/A
<b>Heat of Decomposition:</b>	N/A	<b>pH:</b>	Not relevant
<b>Specific Gravity/Relative Density:</b>	= 1.01 Water=1	<b>Density:</b>	= 8.4285 lbs/gal
<b>Bulk Density:</b>	N/A	<b>Water Solubility:</b>	N/A
<b>Solvent Solubility:</b>	N/A	<b>Viscosity:</b>	22000 to 30000 Centipoise (cPs, cP) or mPas @ 77 F(25 C)
<b>Vapor Pressure:</b>	= 2 mmHg (torr) @ 68 F(20 C)	<b>Vapor Density:</b>	= 1 Air=1
<b>Evaporation Rate:</b>	= 1 Ether = 1	<b>VOC (Wt.):</b>	NDA
<b>VOC (Vol.):</b>	< 250 g/L	<b>Volatiles (Wt.):</b>	NDA
<b>Volatiles (Vol.):</b>	No data available	<b>Flash Point:</b>	105 F(40.5556 C)
<b>Flash Point Test Type:</b>	CC (Closed Cup)	<b>UEL:</b>	6 %
<b>LEL:</b>	.9 %	<b>Heat of Combustion (ΔHc):</b>	Not relevant
<b>Autoignition:</b>	NDA	<b>Self-Accelerating Decomposition Temperature (SADT):</b>	Not relevant

## 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	Concentration	CAS	Data
Asphalt	50% TO 70%	8052-42-4	Acute Toxicity: ; orl-rat LD50:>5000 mg/kg; ihl-rat LC50:>94.4 mg/m3
Bentonite	1% TO 5%	1302-78-9	Acute Toxicity: ; orl-rat TDLo:700 mg/kg/7D-l
Cellulose	1% TO 5%	9004-34-6	Acute Toxicity: ; orl-rat LD50:>5 gm/kg
Solvent naphtha (petroleum), light aromatic	1% TO 5%	64742-95-6	Acute Toxicity: ; orl-rat LD50:8400 mg/kg
1,2,4-Trimethylbenzene	0.5% TO 1.5%	95-63-6	Acute Toxicity: ; orl-rat LD50:5 gm/kg; ihl-rat LC50:18000 mg/m3/4H

- 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.
  - 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. 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.

### Key to abbreviations

- TC = Toxic Concentration  
TD = Toxic Dose  
LD = Lethal Dose

## 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 – Department of Transportation** - Not Regulated when shipped in containers <119 gallons.

**TDG - Canada Transportation of Dangerous Goods:** Tars, Liquids; UN1999; Hazard Class: 3;  
**Packing Group:** III 1.33 Class 3, Flammable Liquids

**TDG Transportation Other Information:** Not Restricted under General Exemption for small container packaging.

**IMO/IMDG –International Maritime Transport** ▪ IMDG Code 2.3.2.5 - exempted from marking, labeling & testing of packages.

Tars, Liquids; UN1999; Hazard Class: 3; Packing Group: III 1.33 Class 3, Flammable Liquids

**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	MN	NJ	PA
Asphalt	8052-42-4	Yes	Yes	Yes	Yes
Mineral Spirits	8052-41-3	Yes	Yes	Yes	Yes
Hydrated aluminium-magnesium silicate	12174-11-7	No	No	No	No
Bentonite	1302-78-9	No	No	No	No
Cellulose	9004-34-6	Yes	Yes	Yes	Yes
Solvent naphtha (petroleum), light aromatic	64742-95-6	No	No	No	No
Styrene/Butadiene Polymer	9003-55-8	No	No	No	No
Quartz	14808-60-7	Yes	Yes	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	Yes	Yes	Yes	Yes
Benzene, 1,3,5-trimethyl	108-67-8	Yes	No	No	No

#### Inventory

Component	CAS	EU EINECS	TSCA
Asphalt	8052-42-4	Yes	Yes
Mineral Spirits	8052-41-3	Yes	Yes
Hydrated aluminium-magnesium silicate	12174-11-7	NDA	Yes
Bentonite	1302-78-9	Yes	Yes
Cellulose	9004-34-6	Yes	Yes
Solvent naphtha (petroleum), light aromatic	64742-95-6	Yes	Yes
Styrene/Butadiene Polymer	9003-55-8	NDA	Yes
Quartz	14808-60-7	Yes	Yes
1,2,4-Trimethylbenzene	95-63-6	Yes	Yes
Benzene, 1,3,5-trimethyl	108-67-8	Yes	Yes

## Canada

Labor

### Canada - WHMIS - Classifications of Substances

▪ Cellulose	9004-34-6	1% TO 5%	Uncontrolled product according to WHMIS classification criteria (including microcrystalline and paper fibers)
▪ Asphalt	8052-42-4	50% TO 70%	Not Listed
▪ 1,2,4-Trimethylbenzene	95-63-6	0.5% TO 1.5%	B3
▪ Solvent naphtha (petroleum), light aromatic	64742-95-6	1% TO 5%	B3, D2B
▪ Quartz	14808-60-7	1% TO 2%	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 website.)
▪ Bentonite	1302-78-9	1% TO 5%	D2A
▪ Mineral Spirits	8052-41-3	15% TO 30%	B3, D2B
▪ Benzene, 1,3,5-trimethyl	108-67-8	0.5% TO 1.5%	B3
▪ Hydrated aluminium-magnesium silicate	12174-11-7	5% TO 10%	Not Listed
▪ Styrene/Butadiene Polymer	9003-55-8	1% TO 5%	Uncontrolled product according to WHMIS classification criteria

## Section 16 - Other Information

### Last Revision Date

- 7/31/2015

### Prepared By

- GG Inc.

### 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

