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Prepared by:	JE Compliance Services, Inc.	Revised by:	JE Compliance Services, Inc.
Issue date:	29 August 2005	Revision date:	30 September 2014

PRODUCT NAME: VulcaSeal G 40 Fiberglass (Modified)/Multipurpose Underlayment

<u>Section 1 – Chemical Product and Company Identification</u>

Fontana Paper Mills, Inc. 137733 Valley Blvd. Fontana, California 92335 USA

Emergency Telephone:

• Emergencies:

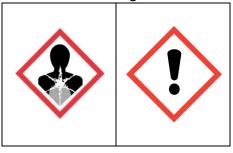
- o 1.909.823.4100 (US, Canada, and North American Numbering Plan-NANP).
- o Country of call origin exit code + 1.909.823.4100 (Outside of US, Canada, and NANP).

Product name: VulcaSeal G 40 Modified Fiberglass (modified)/ Multipurpose Underlayment.

Typical uses: Roofing underlayment paper for houses to be used under concrete/clay tile or metal roofing.

Section 2 – Hazard Identification

UN GHS Hazard Pictograms



Possible primary routes of entry: eye contact, inhalation from fumes generated at high temperatures. Ingestion is possible; however, unlikely under normal conditions of use.

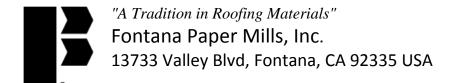
Signs and symptoms of exposure: mucous membrane, skin and eye irritation.

Carcinogenicity: this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm (California Proposition 65).

Physical hazards: stable under normal conditions.

Health hazards: irritant; eye, respiratory, and skin hazard.

Medical conditions generally aggravated by exposure: none unless excessive, repeat exposure. See Section 4 – First Aid Measures and Section 8 – Exposure Controls and Personal Protection.



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The following health and physical hazard classes apply:

- Acute toxicity, category 0.
- Chronic toxicity, category 1.
- Flammable solid, category 0.
- Eye irritation, category 1.
- Digestive irritation, category, 1.
- Respiratory irritation, category 1.
- Skin irritant, category 1.

RISK STATEMENTS

Standard EU CHIP phrases provided are unique to this product and its components.

Risk phrases

- Harmful by inhalation and if swallowed (R20/22).
- Harmful by inhalation, in contact with skin and if swallowed (R20/21/22).
- Irritating to eyes, respiratory system and skin (R36/37/38).
- May cause sensitisation by skin contact (R43).
- May cause cancer (R45).

Safety CHIP phrases

- Keep away from sources of ignition No smoking (\$16).
- Do not breathe dust (S22).
- Avoid contact with skin and eyes (\$24/25).
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26).
- In case of accident or if you feel unwell seek medical advice immediately (\$45).
- Wear suitable protective clothing and gloves (\$36/37).

<u>Section 3 – Composition and Hazard Information about Ingredients</u>

Ingredient	CAS#	Approx weight % content	CHIP Phrases	Exposure Limit OSHA (type)	LC50	Lethal Dose (LD)*
Asphalt	8052-42-4		R20/22, R36/37/38, R45 S16, S24/25, S26, S45, S36/37	5 mg/m ³ TWA (ACGIH, TLV)	N/A	LD50: 5,000 mg/kg (rat oral) LD50: 2,000 mg/kg (rabbit dermal)

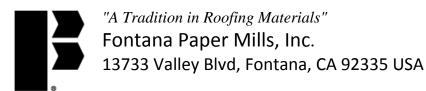
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Ingredient	CAS#	Approx weight % content	CHIP Phrases	Exposure Limit OSHA (type)	LC50	Lethal Dose (LD)*
Copper	7440-50-8		N/A	0.1 mg/m ³ TWA	N/A	LDLO: 100 mg/kg: ETA** (rat intrapleural) LDLO: 120ug/kg: GIT** (human oral)
Nickel	7440-02-0		R43, S22	1 mg/m ³ TWA	N/A	LDLO: 50 mg/kg (mouse intravenous) LDLO: 12 mg/kg (rat intratracheal)
Fibrous glass	65997-17-3		R43 , S22	5 mg /m ³ TWA	N/A	N/A
Formaldehyde	50-00-0		R20/21/22, R36/37/38, R43, R45, S26, S36/37, S45	0.3 ppm (ACGIH, TLV)	590 mg/m ³ (rat inhale)	LD50: 800 mg/kg (rat oral) LD50: 590 mg/m ³ (rat inhalation)

^{*}LDLO; is the lowest dosage per unit of bodyweight of a substance known to have resulted in death in a group of test animals.

<u>Section 4 – First Aid Measures</u>

- Eye contact: if the material contacts the eyes:
 - Wipe away any excess material around the eyes.
 - Immediately flush the affected eye(s) with cold, gently flowing water for a minimum of 15 minutes while holding the eyelid(s) open. Obtain medical attention if irritation persists, or if particles are lodged in surface of the eye(s). Take special care if the exposed person is wearing contact lenses.
- Skin contact: gently brush away excess material. Wash with soap and cold water for a minimum of 15 minutes or until material is removed.
- Inhalation: if fumes are inhaled:



^{*}LD50; the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

^{**}ETA; equivocal tumorigenic agent. GIT; gastrointestinal tract.

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- Move immediately to an area with fresh air.
- o If symptoms of exposure develop, seek medical attention.
- Pre-existing diseases of the upper respiratory tract and lungs such as bronchitis, emphysema, and asthma may be aggravated by exposure to dust.
- Ingestion:
 - o DO NOT induce vomiting.
 - Unlikely under normal conditions of use, but swallowing may result in abdominal discomfort.

<u>Section 5 – Fire Fighting Procedures</u>

- Auto-ignition temperature: >450°F (232°C).
- Flammability: this material can ignite and burn when heated above its flash point. Material will not burn unless preheated.
- Flash point: >450°F (232°C).
- Products of combustion: carbon dioxide, carbon monoxide, hydrocarbons, and dense, black smoke.
- Extinguishing material: carbon dioxide, dry chemical, foam, or water spray.
- Special fire hazards:
 - Wear protective equipment and clothing.
 - Use a self-contained breathing apparatus for fire in enclosed spaces.
 - Use water to dilute and disperse vapors, protect personnel, and to flush unignited materials away from fire.

Section 6 - Accidental Release Measures

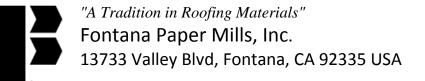
Not applicable.

Section 7 - Handling and Storage

- Routine handling and use:
 - Avoid breathing mists or fumes generated when this material is heated or burned.
 - Avoid eye contact.
 - Wash thoroughly after handling.
- Storage: keep roll on end and off ground to maintain the product integrity.
 - o Do not stack more than three (3) pallets high.

Section 8 – Exposure Controls and Personal Protection

- Exposure limits: Section 3 Composition and Hazard Information about Ingredients.
- General effects of overexposure: primary route of exposure is eye contact; no chronic effects are expected due to exposure associated with this material or its components during normal use



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- Respiratory protection: exposure to fumes which may be generated at high temperatures may irritate the nose, throat, and upper respiratory tract.
- Skin contact: no adverse health effects are expected from skin contact; however, prolonged skin contact may irritate skin.
- Eye protection: Direct contact or exposure to fumes which may be generated at high temperatures may cause burning, tearing, and redness; goggles or safety glasses are recommended.
- Ingestion: accidentally swallowing this material may cause irritation of the stomach and intestinal tract; ingestion is not a likely route of exposure to this product.

Section 9 – Physical and Chemical Properties

• Solid, asphalt coated fiberglass matt, petroleum product odor.

MATERIAL:	Asphalt
BOILING POINT:	N/A
SPECIFIC GRAVITY (H2O = 1):	N/A
MELTING POINT:	N/A
FREEZING POINT:	N/A
FLASH POINT:	>450°F (232°C)
VAPOR PRESSURE (mm Hg):	N/A
VAPOR DENSITY (AIR = 1):	N/A
SOLUBILITY IN H2O, % BY	insoluble
% VOLATILES BY VOLUME:	N/A
APPEARANCE AND ODOR:	black with petroleum odor
DENSITY @ 20°C:	not determined

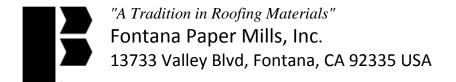
Section 10 - Stability and Reactivity

- Stability: stable.
- Incompatibility: may be incompatible with strong oxidizing agents.
- Reactivity: may react with strong oxidizing agents.

Section 11 – Toxicological Information

Toxicology limits: Section 3 – Composition and Hazard Information about Ingredients.

Acute exposure: mild eye, skin, ingestion, and inhalation irritation.



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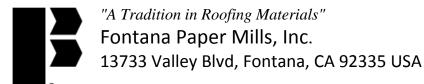
- Eyes: symptoms include redness and epiphora.
- Skin: symptoms include redness and irritation.
- Ingestion: symptoms may include, but are not limited to, thirst, abdominal pain, gastroenteritis, and inflammation of the digestive tract.
- Inhalation: symptoms include, but are not limited to, coughing, sneezing, wheezing and shortness of breath.

Chronic exposure: potential skin irritant, inhalation toxicity and ingestion toxicity. Persons with preexisting conditions will have increased sensitivity.

- Skin: repeated or prolonged skin contact may cause irritation, dryness or cracking of the skin.
- Inhalation and ingestion: chronic toxicity occurs within 4 to 10 days following ingestion of large quantities. Repeated or prolonged inhalation or ingestion may cause metabolic abnormalities and sodium retention. Metabolic abnormalities include acidosis, hypernatremia, hypochloremia, alkalosis, hypocalcemia, or sodium retention may affect the blood, kidneys, respiration, and cardiovascular system. Severe toxicity may affect the behavior/central nervous system. Neurological changes may result metabolic abnormalities that may include, but are not limited to, fatigue, irritability, dizziness, mental confusion, paresthesia, seizures, tetany, and cerebral edema.

Carcinogenicity: California Proposition 65. WARNING: This product contains the following chemicals known by the State of California to cause cancer, birth defects, or other reproductive harm.

CHEMICAL:	CAS NUMBER:
Acetaldehyde	75-07-0
Arsenic	7440-38-2
Asphalt (bitumens)	8052-42-4
Benzene	71-43-2
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)flouranthene	205-99-2
Benzo(e)pyrene	192-97-2
Benzo(k)flouranthene	207-08-9
Butadiene(1,3-)	106-99-0
Cadmium	7440-43-9
Chloroethane	75-00-3
Crystalline silica (airborne particles of respirable size)	
Di(2-ethylhexyl)phthalate	117-81-7
Dibenz(a,h)anthracene	53-70-3



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Formaldehyde	50-00-0
Glass wool fibers (airborne particles of respirable size)	
Indeno(1,2,3-cd)pyrene	193-39-5
Lead	7439-92-1
Lead compounds	
Naphthalene	91-20-3
Nickel	7440-02-0
Nickel compounds	
Toluene	108-88-3
Vinyl chloride	75-01-4

- International Agency for Research on Cancer (IARC): not reviewed by IARC.
- American Conference of Industrial Hygienists (ACGIH): not reviewed by ACGIH.
- Reproductive toxicity: not available.
- Teratogenicity: not established.
- Embryotoxicity: not available.
- Mutagenicity: not available.

Section 12 – Ecological Information

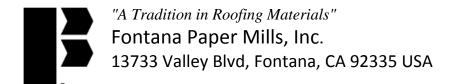
• Do not release into the ocean, waterways, wastewater or groundwater.

Section 13 – Disposal Considerations

• Waste must be disposed of in accordance with federal, state, and local regulations. Any processing, alteration, chemical additions to, or contamination of this product will alter the disposal requirements.

Section 14 - Transport Information

- UN number: not applicable.
- Not a United States Department of Transportation (USDOT) regulated hazardous material (49 CFR 172).
- International Maritime Dangerous Goods (IMDG): not regulated as dangerous good.
- International Air Transport Association (IATA): not regulated as dangerous good.
- European Agreements Concerning the International Carriage of Dangerous Goods by Rail (RID) and by Road (ADR): Not regulated as dangerous good.
- Canadian TDG: not regulated as dangerous good.



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- Not regulated under the United Nations Economic Commission for Europe (UNECE) European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN 2013).
- Not regulated under the Australian Dangerous Goods Code (ADG7).

<u> Section 15 – Regulatory Information</u>

• SARA Section 313 Notification: this material contains asphalt (CAS# 8052-42-4). Asphalt is assumed to contain the following SARA 313-listed constituents:

CHEMICAL:	CAS NUMBER:	
Acetaldehyde	75-07-0	
Benzene	71-43-2	
Butadiene,1,3-	106-99-0	
Chloroethane	75-00-3	
Formaldehyde	50-00-0	
Lead	7439-92-1	
Toluene	108-88-3	
Vinyl chloride	75-01-4	

- Please contact Fontana Paper Mills, Inc. for additional information prior to completing any EPCRA report.
- California Proposition 65: this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
- 49 CFR 171 Reportable Quantity: none listed.
- 40 CFR 355 Reportable Quantity: none listed.
- VOC Content, Material: 0.
- VOC Content, Less Water: 0.
- Clean Air Act Ozone Depleter: none listed.

<u>Section 16 – Other Information/Disclaimer</u>

• US NFPA Standard 704 Rating. Health=1; Fire=1; Reactivity=0.