

SAFETY DATA SHEET

This safety data sheet complies with the requirements of: 29CFR1910.1200

Issue Date 05-May-2015	Revision Date	09-May-2015	Version	1
Product identifier Product Name	Modified Bitumen Adhes	sive - Brush Grade		
Other means of identification Product Code Synonyms	82820 None			
Recommended use of the chemica	and restrictions on use			
Recommended Use		e for adhering APP with no polyethylene burn off backin	g or SBS	
Uses advised against	modified bitumen membranes to asphalt coated base sheets. For exterior use only. Do not use indoors.			
-	-			
Details of the supplier of the safety	data sheet			
Manufacturer Address	FBC Chemical Corp.			
	P.O. Box 599			
	634 Route 228			
	Mars, Pennsylvania 160	46		
	(724) 625-3116			
Emergency telephone number				
Company Phone Number	724 625 3116			
Emergency Telephone	Call CHEMTREC Day o	0		
	Within USA and Canada Outside USA and Canada			
		Ja. 1-103-321-3001		

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements May cause genetic defects May cause cancer Causes damage to organs through prolonged or repeated exposure May be fatal if swallowed and enters airways Flammable liquid and vapor Appearance Viscous Physical state Liquid Odor Solvent (Mineral Spirits)

Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Keep away from heat/sparks/open flames/hot surfaces. Keep container tightly closed when product is not in use. Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/equipment Use only non-sparking tools Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

May be harmful in contact with skin

Toxic to aquatic life with long lasting effects

Unknown acute toxicity

10.25227% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

<u>Mixture</u> This product is a mixture. This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Synonyms	None.
Chemical nature	Asphaltic Coating

Chemical Name	CAS No.	Weight-%	Trade Secret
Asphalt (at Ambient Temperature)	8052-42-4	50 - 60%	*
Mineral Spirits (with < 0.1% Benzene)	8052-41-3	10 - 20%	*
Calcium Carbonate	471-34-1	0 - 10%	*
Hydrated Aluminum-Magnesium Silicate (Attapulgite)	12174-11-7	0 - 10%	*
Aromatic Naptha	64742-95-6	0 - 10%	*
Cellulose Fiber	9004-34-6	0 - 10%	*
Styrene/Butadiene Copolymer	9003-55-8	0 - 10%	*
QUARTZ	14808-60-7	0 - 10%	*

4. FIRST AID MEASURES

Description of first aid measures

General advice	Contains petroleum distillate. Harmful or fatal if swallowed. Vapor harmful. May affect the brain or central nervous system causing dizziness, headache, or nausea. Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.	
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
Skin contact	Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.	
Inhalation	Move to fresh air in case of accidental inhalation of vapors. If continued difficulty with breathing is experienced, get medical attention immediately.	
Ingestion	Not an expected route of exposure. If swallowed, do not induce vomiting. Get medical attention immediately.	
Self-protection of the first aider	First aider: Pay attention to self-protection!.	
Most important symptoms and effe	cts, both acute and delayed	
Symptoms	May cause skin irritation. May cause eye irritation.	
Indication of any immediate medical attention and special treatment needed		
Note to physicians	Treat symptomatically.	

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry chemical. Carbon dioxide (CO2). Sand. Use foam or water FOG as a last resort.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

<u>Specific hazards arising from the chemical</u> No information available.

Hazardous combustion products Thermal decomposition (burning) may release irritating, corrosive and/or toxic gases, vapors and fumes.

Explosion data

Sensitivity to Mechanical Impact Not sensitive. Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures		
Personal precautions	No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.	
Other Information	Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).	
For emergency responders	Use personal protection recommended in Section 8.	
Environmental precautions		
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering sewers, drains, or waterways. Local authorities should be advised if significant spillages can not be contained. See Section 12 for additional ecological information.	
Methods and material for containment and cleaning up		
Methods for containment	Contain spillage with non-combustible absorbent material, e.g. sand, earth, diatomaceous earth, vermiculite.	
Methods for cleaning up	Pick up the absorbed material (described just above) and transfer to properly labeled containers for disposal according to local / national regulations (see Section 13).	
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.	
7. HANDLING AND STORAGE		

Precautions for safe handling			
Advice on safe handling	Use personal protective equipment as required. Remove all sources of ignition. Use only outdoors.		
Conditions for safe storage, including any incompatibilities			
Storage Conditions	Keep containers tightly closed in a cool, dry, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition.		
Incompatible materials	Strong acids. Strong oxidizing agents.		

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	
Asphalt (at Ambient Temperature)	TWA: 0.5 mg/m ³ benzene soluble	-	Ceiling: 5 mg/m ³ fume 15 min	

8052-42-4	aerosol fume, inhalable fraction		
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m ³	IDLH: 20000 mg/m ³ Ceiling: 1800 mg/m ³ 15 min TWA: 350 mg/m ³
Calcium Carbonate 471-34-1	-	-	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	TWA: 1 mg/m ³ respirable fraction	-	-
Cellulose Fiber 9004-34-6	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ (vacated) STEL: 10 mg/m ³	TWA: 1 mg/m ³
QUARTZ 14808-60-7	-	 (vacated) TWA: 0.1 mg/m³ respirable dust : (30)/(%SiO2 + 2) mg/m³ TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction 	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust

Appropriate engineering controls

Engineering Controls

Use natural cross ventilation, local (mechanical) pick-up, and/or general area mechanical cross ventilation. Ventilation pattern should be designed to prevent accumulation of solvent vapors. Ventilation must be sufficient to maintain solvent vapor concentrations below the TWA limits outlined above.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protective gloves and protective clothing that is resistant to chemical penetration.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.
General Hygiene Considerations	Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Liquid Viscous Black	Odor Odor threshold	Solvent (Mineral Spirits) No information available
Property	<u>Values</u>	Remarks • Method	
рН	N/A	Not applicable	
Melting point/freezing point	No information available		
Boiling point / boiling range	> No information available		
Flash point	> 40.5 °C / > 105 °F	Setaflash	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air		No data available.	
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	1.00 - 1.08	Water = 1g/ml	

Water solubility Solubility in other solvents	Insoluble Soluble in aromatic and aliphatic solvents.	
Partition coefficient	No information available	No data available.
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Vapor accumulation could flash or	explode if ignited.
Oxidizing properties	None	
Other Information		

Softening point Molecular weight VOC Content (%) Density Bulk density Not applicable No information available Less than 250 g/l. No information available Not applicable

10. STABILITY AND REACTIVITY

Reactivity Not applicable

Not applicable

Chemical stabilityStable.Possibility of Hazardous ReactionsNone under normal use.Hazardous polymerizationHazardous polymerization

Hazardous polymerization does not occur.

<u>Conditions to avoid</u> Avoid static discharge. Avoid heat, sparks, and open flame. <u>Incompatible materials</u> Strong acids. Strong oxidizing agents. <u>Hazardous Decomposition Products</u> Combustion may produce carbon monoxide, carbon dioxide, and other asphyxiants.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.	
Inhalation	Avoid breathing vapors or mists.	
Eye contact	Avoid contact with eyes. Contact with eyes may cause irritation.	
Skin contact	May cause irritation.	
Ingestion	If swallowed, do not induce vomiting. Get medical attention immediately. Not an expected route of exposure.	
Component Information	* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to	

demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

** No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html

*** The IARC Monograph (Vol 93, 2010, Carbon Black, Titanium Dioxide, Talc) states: "Operators in user industries who handle fluffy or pelleted Carbon Black during rubber, paint and ink production are expected to have significantly lower exposures to Carbon Black than workers in Carbon Black production. Other workers in user industries who handle it occasionally have little opportunity for exposure. And further..."End-users of these products (rubber, ink or paint) are unlikely to be exposed to airborne Carbon Black particles, which are bound within the product matrix."

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature) 8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Calcium Carbonate 471-34-1	= 6450 mg/kg (Rat)	-	-
Aromatic Naptha 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat)4 h
Cellulose Fiber 9004-34-6	> 5 g/kg (Rat)	> 2 g/kg (Rabbit)	> 5800 mg/m³ (Rat)4 h
QUARTZ 14808-60-7	= 500 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Can cause skin irritation.
Serious eye damage/eye irritation	Irritating to eyes.
Irritation	Irritating to eyes, respiratory system and skin.
Corrosivity	Not classified.
Sensitization	May cause sensitization of susceptible persons.
Germ cell mutagenicity	This product does not contain any ingredients that cause germ cell mutagenicity.
Carcinogenicity	The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed
	any ingredient as a carcinogen.
Corrosivity Sensitization Germ cell mutagenicity	Not classified. May cause sensitization of susceptible persons. This product does not contain any ingredients that cause germ cell mutagenicity. The table below indicates whether each agency (ACGIH, IARC, NTP, or OSHA) has listed

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrated Aluminum-Magnesium Silicate (Attapulgite) 12174-11-7	-	Group 2B Group 3	-	Х
Styrene/Butadiene Copolymer 9003-55-8	-	Group 3	-	-
Lawawal				

Legend

 ACGIH (American Conference of Governmental Industrial Hygienists)

 A1 - Known Human Carcinogen

 A2 - Suspected Human Carcinogen

 A3 - Animal Carcinogen

 A4 - Not Classifiable as a Human Carcinogen

 IARC (International Agency for Research on Cancer)

 Group 1 - Carcinogenic to Humans

 Group 2A - Probably Carcinogenic to Humans

 Group 2B - Possibly Carcinogenic to Humans

 Group 3 - Not classifiable as a human carcinogen.

 NTP (National Toxicology Program)

 Known - Known Carcinogen

 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

 OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present	
Reproductive toxicity	None known.
Developmental Toxicity	None known.
Teratogenicity	None known.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Numerical measures of toxicity	- No information available

The following values are calculated based on chapter 3.1 of the GHS document For exterior use only. Do not use indoors.

ATEmix (oral)	6,570.00
ATEmix (dermal)	2,837.00

12. ECOLOGICAL INFORMATION

Not regulated if shipped in containers < 119 gallons (450 liters).

Ecotoxicity

96.9662% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature)	6
8052-42-4	

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable local, regional, national and international		
	laws and regulations.		

Contaminated packaging	Do not reuse container.
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14. TRANSPORT INFORMATION

DOT	DOT Ground: Regulated if shipped in containers >119 gallons (450 liters).
Proper shipping name Hazard Class Packing Group Marine pollutant Emergency Response Guide Number	Flammable liquid, n.o.s.(Petroleum distillates) 3 III Not regulated if shipped in containers < 119 gallons (450 liters). 128

<u>TDG</u>	unknown		
ICAO (air)	unknown		
IMDG	unknown		
<u>RID</u>	unknown		
ADR	unknown		
ADN	unknown		
15. REGULATORY INFORMATION			
International Inventories			
TSCA	All of the components of this product are listed on the US TSCA (Toxic Substances Control		
	Act) Inventory or are exempt.		
DSL/NDSL	All of the components of this product are listed on the DSL.		

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories	
Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

California Proposition 65
Carcinogen
Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania X		
Asphalt (at Ambient Temperature) 8052-42-4	Х	X			
Mineral Spirits (with < 0.1% Benzene) 8052-41-3	Х	X	x		
Cellulose Fiber 9004-34-6			X		
QUARTZ 14808-60-7	Х	X	Х		

This product contains the following substances regulated by various State Right-to-Know regulations.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability	2	Instability 0		Physical and Chemical Properties -
HMIS Chronic Hazard Star Lege	Health hazards 2 nd *= Chronic	Flammability Health Hazard	2	Physical hazards	0	Personal protection -
Prepared By Issue Date Revision Date	AIM Admir 05-May-20 09-May-20		Departmo	ent		

Revision Note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet