Safe Use Instruction Sheet (SUIS)

Section 1. Chemical Product and Company Identification

Product Name: Glass Mat	**Product Code: Code on packaging follows the Name**
Manufacturer's Name: Saint-Gobain ADFORS America, Inc. 2900 Bird St. North Charleston SC 29405 475 Walnut Gate Rd Russellville AL 35654	**24 Hour Emergency Telephone Number:** Chemtrec: 1-800-424-9300 **Contact numbers during business hours** Charleston plant: 1-(843)-744-7451 Russellville plant: 1-(256)-332-9020
Date Prepared: July 22, 2014	**Date of Expiry: July 22, 2017**

Section 2. Composition / Information on Ingredients

This product is composed of continuous filament fibreglass
Dust may be generated by mechanical processing or abrading of the product.

CAS Number	Component	Wt. %
65997-17-3	Continuous filaments glass fibers	70 - 90
Not Available	Urea, polymer with formaldehyde (Modified, Cured)	10 – 30
Not Available	Polymer coating (Cured)	0 - 10
50-00-0	Formaldehyde	<0.1
Not Available	Sizing	<0.1

May

Section 3. Hazards Identification

EYES:	May cause eye irritation, itching or redness when dust is generated or through direct contact with dust or glass fibres.
INHALATION:	Dust particles and glass fibres can be inhaled; i.e. able to be breathed in the upper respiratory tract causing mechanical irritation of the mouth, nose and throat. And coughing and congestion may occur. The essential point to remember is that glass filaments are not "respirable" as they are over 3µm in diameter and have been shown not to cause lung cancer.
SKIN:	May cause short term irritation, itching and redness.
INGESTION:	Ingestion may cause temporary irritation of the digestive tract. If symptoms develop consult a physician.

Allergies in rare instances.

Section 4. First Aid Measures

INHALATION:	Glass fibres may cause mechanical irritation to the mouth, nose and throat. Remove the person to fresh air. If symptoms persist, consult a physician.
EYE CONTACT:	Flush eyes with large amounts of water for at least 15 min. Do not rub or scratch eyes. If irritation persists, consult a physician.
SKIN CONTACT:	Wash with mild soap and running water without excessive rubbing. Wash hands before eating or using the restroom. Don't use compressed air to remove fibres from the skin. If irritation persists, consult a physician.
INGESTION:	Unlikely entry route. If symptoms develop consult a physician.
NOTE TO PHYSICIAN:	No special instructions at normal conditions. Under high heat or humidity may release irritating formaldehyde gas that is skin and respiratory sensitizer.

Section 5. Firefighting Information

FLASH POINT:	Not applicable	**METHOD USED:**	Not applicable
FLAMMABLE LIMITS:	Not applicable		
LOWER FLAMMABLE:	Not applicable	**UPPER FLAMMABLE:**	Not applicable
EXTINGUISHING MEDIA:	Water, water spray, foam, carbon dioxide, dry chemical		
FIRE & EXPLOSION HAZARD	There is no potential for spontaneous fire or explosion.		
FIRE FIGHTING INSTRUCTIONS:	Thermal decomposition of fabric coating may cause irritating smoke and fumes.		
FIRE FIGHTING EQUIPMENT:	Fire fighters should wear appropriate self contained breathing apparatus and impervious protective clothing. And avoid inhaling any combustion products.		
PRODUCT STATUS:	In case of fire, glass fibres are not flammable, are incombustible and don't support combustion. Only the packaging (plastic film, paper, cardboard, wood) is likely to burn. Binders and sizing may be combustible.		
HAZARDOUS COMBUSTION PRODUCTS:	Combustion gases are basically carbon dioxide and water vapor. There may be carbon monoxide, nitrogen oxides and small quantities of other unknown substances.		

Section 6. Accidental Release Measures

CONTAINMENT PROCEDURES:	This material settles out of the air. On land pick up large pieces and clean up the small pieces and dusts with a vacuum or by a wet sweeping technique. Do not use compressed air.
CLEAN-UP PROCEDURES:	Avoid the generation of dusts during clean-up. All waste and scrap material should be disposed of in accordance with applicable national, federal, state, and local regulations.
RESPONSE PROCEDURES:	Isolate the containment area.
SPECIAL PROCEDURES:	None.

Section 7. Handling and Storage

HANDLING PROCEDURES:	Use this product only with adequate ventilation. Avoid eye and excessive skin contact: wear gloves, garments with long sleeves and long leggings or protective overalls, goggles, and dust masks. Glass filaments and dusts must be removed from work garments with a vacuum cleaner and not blown off with compressed air jets. Wash work garments separately from other clothes. Avoid inhaling dusts or vapors produced during handling and processing, avoid dusts build up.
STORAGE PROCEDURES:	Store in a dry place with adequate ventilation and avoid direct sunlight. Under elevated temperature and high humidity, formaldehyde may be released and accumulated in poorly ventilated areas. OSHA requires companies where the concentration of airborne formaldehyde exceeds the TWA or STEL, to establish regulated areas and post all entrances and access ways with signs bearing the following information as: "DANGER, FORMALDEHYDE IRRITANT AND POTENTIAL CANCER HAZARD, AUTHORIZED PERSONNELL ONLY."

Section 8. Exposure Controls / Personal Protective Equipment

VENTILATION:	Use general dilution ventilation and/or local exhaust ventilation to maintain exposures below occupational exposure limits. If ventilation is unavailable or inadequate, for keeping formaldehyde, dust and fibre levels below the applicable exposure limits, need to use suitable respirator in accordance with your company, local regulations and OSHA regulations.
RESPIRATORY PROTECTION:	A properly fitted NIOSH (American National Institute For Occupational Safety And Health) approved disposable N 95 series dust respirator such as type 3M 8210 (formerly 8710) or 3M 8271 (formerly 9900) respirators should be used under any dust environment or during a process that generates dusts. Use respiratory protection in accordance with the respiratory protection program of your company, local regulations and OSHA regulations under 29 CFR 1910.134.
SKIN PROTECTION:	Wear protective cotton or leather gloves for hands. And wear long-sleeved garments and long leggings to prevent irritation and nuisance dust. Barrier cream may also be applied to exposed skin areas, especially for people with delicate skin.
EYE PROTECTION:	Wear approved safety glasses with side-shields or goggles, masks to minimize eye and face contact.
EXPOSURE GUIDELINE (S):	

A: General Product Information	Continuous filament glass fibres contained in the glass mat are not respirable. If continuous filament glass products are severely chopped, crushed or processed, it may generate very small amounts of respirable particulate, some of which may be glass shards.	
B: Component Exposure limits	**Fibre Glass Continuous (non-respirable) (CAS No. 65997-17-3)**	
	ACGIH	I fibre/cm³ TWA (for respirable fibres longer than 5µm with a diameter less than 3µm); 5mg/m³ TWA (inhalable particulate); (Listed under "Synthetic vitreous fibres") (related to continuous filament glass fibres)
	OSHA	Total dust 15mg/m³ TWA; respirable fraction: 5 mg/m³ TWA (related to Particulates not otherwise regulated)
	Formaldehyde (CAS No. 50-00-0)	
	ACGIH	C 0.3 ppm
	OSHA	0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

Section 9. Physical and Chemical Properties

APPEARANCE	White to yellow fibreglass mat		
BOILING POINT	Not applicable	**PHYSICAL STATE**	Solid
EVAPORATION RATE	Not applicable	**SOLUBILITY IN WATER**	Insoluble
FREEZING POINT	Not applicable	**SPECIFIC GRAVITY**	Depending on glass strands and binder rates (2.6 or 2.7 g/cm³ for glass, 0.9 to 1.2 g/cm³ for cured binder)
MELTING POINT	E-glass softening point (Littleton point) at 850C, melting point range 1200° – 1250°C. Other glass may have slight lower than these points.	**VAPOR DENSITY**	Not applicable
MOLECULAR WEIGHT	Not applicable	**VAPOR PRESSURE**	Not applicable
ODOR	None or mild chemical or formaldehyde	**VISCOSITY**	Not applicable
pH	Not applicable	**% VOLATILE**	Non-volatile
	Not applicable	**STATIC CHARGE**	Can build Static Charge

Section 10. Stability and Reactivity

CHEMICAL STABILITY:	This product is stable under the recommended storage conditions. Binder starts to decompose at 230°C to 250°C
INCOMPATIBILITY:	Avoid strong oxidizers. Should be stored and used in a dry area.
HAZARDOUS DECOMPOSITION PRODUCTS:	In combustion conditions, in addition to water vapor and carbon dioxide, less amount carbon monoxide, nitrogen oxides, carbon particles, formaldehyde gas as well as other undetermined small quantity compounds may be released.
HAZARDOUS POLYMERIZATION:	Will not occur.

Section 11. Toxicological Information and Chronic Exposure

ACUTE TOXICITY:

A: General Product Information	Dusts and fibers from this product may cause mechanical irritation or scratchiness to eyes, skin and throat. Inhalation and ingestion may cause coughing, irritation to nose and throat, stomach and gastrointestinal tract, and sneezing. Formaldehyde can be released under high heat and humidity condition s may cause severe eye and respiratory irritation. Higher exposures may cause difficulty breathing, congestion, and chest tightness. The National Toxicology Program (NTP) includes formaldehyde in its Annual Report on Carcinogens. OSHA requires companies where the concentration of airborne formaldehyde exceeds the TWA or the STEL, o establish regulated areas and post all entrances and access way with signs bearing the following information as: "DANGER, FORMALDEHYDE IRRITANT AND POTENTIAL CANCER HAZARD, AUTHORIZED PERSONNELL ONLY."	
B: Component Analysis – LD50/LC50	**Urea, polymer with formaldehyde** Inhalation LC50 Rat: >167 mg/m³/4H Oral LD50 Rat: 8394 mg/kg Oral LD50 Mouse: 6361 mg/kg	
	Formaldehyde (50-00-0) Inhalation LC50 Rat: 0.578 mg/L/4H Inhalation LC50 Rat: 250 ppm/4H Oral LD50 Rat: 100 mg/kg Dermal LD50 Rabbit: 270 mg/kg	
CARCINOGENICITY:		
A: General Product Information	**Fiber Glass Continuous Filament:** The American Conference of Governmental Industrial Hygienists (ACGIH) A4 classification, not classifiable as a human carcinogen, for respirable continuous filament glass fibers is based on inadequate data in terms of its carcinogenicity in humans and/or animals. A TLV-TWA of 1 fiber/cm³ was adopted to protect workers against mechanical irritation. The TLV-TWA of 5 mg/m³ was adopted for non-respirable glass filament fiber, measured as inhalable dust, to prevent mechanical irritation of the upper respiratory tract.	
	Formaldehyde: The International Agency for Research on Cancer (IARC) classifies formaldehyde as a carcinogen. This classification is based on the increased occurrence of a rare cancer of the nasopharyngeal cavity. IARC determined that there was insufficient evidence of other cancers including cancer of the oral cavity, oro- and hypopharynx, larynx, lung, sinonasal cavity, pancreas, brain and leukemia. The National Toxicology Program (NTP) includes companies where the concentration of airborne formaldehyde exceeds the TWA or the STEL, to establish regulated areas and post all entrances and access ways with signs bearing the following information as: "DANGER, FORMALDEHYDE IRRITANT AND POTENTIAL CANCER HAZARD, AUTHORIZED PERSONNELL ONLY."	
B: Component Carcinogenicity	Fiber Glass Continuous Filament:	
	ACGIH	A4 – Not Classifiable as a Human Carcinogen
	IARC	Group 3 – Not Classifiable (IARC Monograph 81 [2002] (listed under Man-made mineral fibers), Monograph 43 [1998])
	Formaldehyde (CAS No. 50-00-0)	
	ACGIH	A2 – suspected human carcinogen
	OSHA	0.75 ppm TWA; 0.5 ppm Action Level; 2 ppm STEL (Irritant and potential cancer hazard – see 29 CFR 1910.1048)
	NTP	Known Human Carcinogen – (12th Report on Carcinogens)
	IARC	Group 1 – Known Human Carcinogen (IARC Monograph 88 in preparation, Monograph 62 [1995], Supplement 7 [1987])
CHRONIC TOXICITY:		
Continuous Filament Glass Fiber	No chronic health effects associated with exposure to continuous filament fiber glass. Epidemiologic studies have not indicated any increase in cancer or respiratory disease. The glass fibers used in glass mat have large diameter, and because of this they are not considered respirable.	

MUTAGENICITY:	Under high heat or humidity conditions glass mat can release formaldehyde gas causing eye and respiratory irritation, and possible skin or respiratory sensitization. Formaldehyde gas may worsen asthma or other respiratory problems and cause allergic-type reactions. The International Agency for Research on Cancer (IARC) has classified formaldehyde as Group 1, a known human carcinogen. The US Occupational Safety and Health Administration (OSHA) and the US National Toxicology Program (NTP) consider formaldehyde to have carcinogenic potential. OSHA regulates formaldehyde under 29 CFR 1910.1048.

Section 12. Ecological Information

ECOTOXICITY:

A: General Product Information	No data available for this product. This material is not known to cause harm to animals, plants or fish.
B: Component Analysis – Eco-toxicity – Aquatic Toxicity	Formaldehyde (CAS No. 50-00-0) LC50 (96hr) fathead minnow: 24.1 mg/L. Cond: flow-through, 21.7 degree C, pH 6.8, 50.8 mg/L CaCO3; LC50 (96 hr) bluegill: 0.10 mg/L. Cond: flow-through.

Environmental Fate: No data available for this product.

Section 13. Disposal Considerations

US EPA WASTE NUMBER & DESCRIPTIONS

A: General Product Information	Comply with state and local regulations for disposal. Contact your local Public Health Department or the local office of the EPA to know regulations.
B: Component Waste Numbers	No EPA Waste Numbers are applicable for this product's components.

DISPOSAL INSTRUCTIONS: Dispose of waste material according to Local, State, Federal and Provincial, National Environmental Regulations.

Section 14. Transport Information (Not meant to be all inclusive)

INTERNATIONAL TRANSPORTATION REGULATIONS:

This product is not classified as a hazardous material for transport. Mineral Wool Batts Batting or Blankets. Plain or Saturated
2299918001

US DOT INFORMATION:

Shipping Name	Not regulated for transport
Hazard Class	None
UN/NA #	None
Packing Group	None
Required Label(s)	None
Additional Information	None

CANADA TDG INFORMATION:

Shipping Name	Not regulated for transport
Hazard Class	None
UN/NA #	None
Packing Group	None
Required Label(s)	None
Additional Information	None

Section 15. Regulatory Information- Not meant to be all inclusive - selected regulation

US FEDERAL REGULATIONS

A: General Product Information	SARA 311 Status: Immediate (acute) health hazard. Delayed (chronic) health hazard.
B: Component Analysis	This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

	Formaldehyde (CAS No. 50-00-0)	
	SARA 302	TPQ = 500 pounds; RQ = 100 pounds (does not meet toxicity criteria but because of high production volume and recognized toxicity is considered a chemical of concern).
	SARA 313	Form R reporting required for 0.1% de minimis concentration
	CERCLA	Final RQ = 100 pounds (45.4 kg)
	SARA 311/312	
	Acute Health Hazard	Yes
	Chronic Health Hazard	Yes
	Fire Hazard	No
	Sudden Release of Pressure Hazard	No
	Reactive Hazard	No

C: Clean Air Act	The following components appear on the Clean Air Act – 1990 Hazardous Air Pollutants List.		
	Compent	Cas No.	CAA
	Formaldehyde	50-00-0	Yes

STATE REGULATIONS

A: General Product Information	Other State regulations may apply. Check Individual state requirements							
B: Component Analysis - STATE	The following components on one or more of state hazardous substances list:							
	Component	CAS No.	CA	FL	MA	MN	NJ	PA
	Continuous filament glass fibers	NA	Yes	No	Yes	Yes	No	Yes
	Formaldehyde	50-00-0	Yes	No	Yes	Yes	Yes	Yes
	The following statements are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains a chemical known to the state of California to cause cancer.							
	Component	CAS No.						
	Formaldehyde	50-00-0						
	This product contains ingredients subject to proposition 65							

B: Component Analysis – Inventory	Component	CAS No.	TSCA	DSL	EINECS
	Fiber Glass Continuous	NA	Yes	Yes	Yes
	Urea, polymer with Formaldehyde	NA	Yes	Yes	No
	Formaldehyde	50-00-0	Yes	Yes	Yes

C: Component Analysis – WHMIS IDL	The following Components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List		
	Component	CAS No.	
	Fiber Glass Continuous	NA	1% Item 768 (884) (related to fibrous glass)
	WHMIS Status	Not Controlled	
	WHMIS Classification	None	

Section 16. Other Information

HMIS and NFPA Hazard Ratings:	**Category**	**HMIS**	**NFPA**
	Health	1	1
	Flammability	0	0
	Reactivity	0	0

NFPA Unusual Hazards	None
HMIS Personal Protection	To be supplied by user depending upon use

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