SAFETY DATA SHEET

KS0024600

Section 1. Identification

Product name	: KOOL SEAL® Premium Fibered Aluminum Roof Coating (5 year)		
Product code	: KS0024600		
Other means of identification	: Not available.		
Product type	: Liquid.		
Relevant identified uses of the substance or mixture and uses advised against			

Paint or paint related material.

Section 2. Hazards identification

year)

Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 SERIOUS EYE DAMAGE/ EYE IRRI	TATION - Category 2A	
	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXIC irritation) - Category 3	ITY (SINGLE EXPOSU	JRE) (Respiratory tract
	SPECIFIC TARGET ORGAN TOXIC Category 3	ITY (SINGLE EXPOSU	JRE) (Narcotic effects) -
	SPECIFIC TARGET ORGAN TOXIC system (CNS), lungs) - Category 1 ASPIRATION HAZARD - Category 1	ITY (REPEATED EXP	OSURE) (central nervous
	Percentage of the mixture consisting 57.7%	of ingredient(s) of unk	nown acute oral toxicity:
	Percentage of the mixture consisting 88.2%	of ingredient(s) of unk	nown acute dermal toxicity:
	Percentage of the mixture consisting toxicity: 88.2%	of ingredient(s) of unk	nown acute inhalation
GHS label elements			
Hazard pictograms		•	
Date of issue/Date of revision	: 11/28/2019 Date of previous issue	: 5/9/2019	Version : 8 1/18

Section 2. Hazards identification

Signal word	: Danger
Hazard statements	 H226 - Flammable liquid and vapor. H319 - Causes serious eye irritation. H350 - May cause cancer. H304 - May be fatal if swallowed and enters airways. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), lungs)
Precautionary statements	
General	 P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	 P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
Response	 P314 - Get medical attention if you feel unwell. P308 + P313 - IF exposed or concerned: Get medical attention. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	: P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8	2/18
KS0024600	KOOL SEAL® Premium year)	n Fibered Alumin	num Roof Coating (5		SHW-85-I	NA-GHS-MX	

Section 2. Hazards identification

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of

identification

: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Asphalt (Petroleum)	≥25 - ≤50	8052-42-4
Light Aliphatic Hydrocarbon	≥25 - ≤50	64742-47-8
Stoddard Solvent	≥10 - ≤25	8052-41-3
Mica	≤10	12001-26-2
Aluminum	≤10	7429-90-5
Perlite	≤3	93763-70-3
Heavy Aliphatic Solvent	≤3	64742-82-1
Cellulose	≤3	9004-34-6
Kaolin	≤3	1332-58-7
Crystalline Silica, respirable powder	<1	14808-60-7
1,3,5-Trimethylbenzene	<1	108-67-8
1,2,4-Trimethylbenzene	<1	95-63-6
Xylene, mixed isomers	≤0.3	1330-20-7
Crystalline Silica, non-respirable	≤0.3	14808-60-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary fi	<u>irst a</u>	<u>d measures</u>				
Eye contact	:	Immediately flush eyes with plenty eyelids. Check for and remove any minutes. Get medical attention.				
Inhalation	:	Remove victim to fresh air and kee is suspected that fumes are still pre- or self-contained breathing apparat respiratory arrest occurs, provide a may be dangerous to the person pr Get medical attention. If necessary place in recovery position and get r airway. Loosen tight clothing such	esent, the rescuer sho us. If not breathing, i rtificial respiration or oviding aid to give mo , call a poison center nedical attention imm	buld wear an ap f breathing is irr boxygen by traine buth-to-mouth n or physician. I ediately. Maint	propriate n regular or if ed personn esuscitation f unconscio	nask f iel. It n. ous,
Skin contact	:	Flush contaminated skin with plenty shoes. Wash contaminated clothin gloves. Continue to rinse for at lea before reuse. Clean shoes thoroug	ig thoroughly with wat st 10 minutes. Get m	er before remov	ving it, or w	
Ingestion	:	Get medical attention immediately. with water. Remove dentures if any position comfortable for breathing. person is conscious, give small qua feels sick as vomiting may be dang lungs and cause damage. Do not i be kept low so that vomit does not	y. Remove victim to a If material has been antities of water to driver erous. Aspiration has nduce vomiting. If vo	fresh air and ke swallowed and nk. Stop if the e zard if swallowe miting occurs, t	ep at rest in the expose exposed pe ed. Can en the head st	n a ed erson ter nould
Date of issue/Date of revision		: 11/28/2019 Date of previous issue	: 5/9/2019	Version	:8	3/18

Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8
KS0024600	KOOL SEAL® Premiun year)	n Fibered Alumii	num Roof Coating (5		SHW-85-1	NA-GHS-MX

Section 4. First aid measures

unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

wost important symptoms/e	<u>mects, acute and delayed</u>
Potential acute health effe	<u>ots</u>
Eye contact	: Causes serious eye irritation.
Inhalation	 Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Over-exposure signs/symp	<u>itoms</u>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: No specific data.
Ingestion	: Adverse symptoms may include the following: nausea or vomiting
Indication of immediate mediate	dical attention and special treatment needed, if necessary
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

<u>Extinguishing media</u>	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam
Unsuitable extinguishing media	: Do not use water jet.

Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8
KS0024600	KOOL SEAL® Premiun	n Fibered Alumi	num Roof Coating (5		SHW-85-	NA-GHS-MX
	year)					

4/18

Section 5. Fire-fighting measures

Specific hazards arising	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a
from the chemical	fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.			
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".			
Environmental precautions		Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.			
Methods and materials for co	ont	ainment and cleaning up			
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.			
Large spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the			

information and Section 13 for waste disposal.

same hazard as the spilled product. Note: see Section 1 for emergency contact

Section 7. Handling and storage

Precautions for safe handling	
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Asphalt (Petroleum)	8052-42-4	NIOSH REL (United States, 10/2016). CEIL: 5 mg/m ³ 15 minutes. Form: Fume ACGIH TLV (United States, 3/2019). TWA: 0.5 mg/m ³ , (as benzene soluble aerosol) 8 hours. Form: Inhalable fraction
Light Aliphatic Hydrocarbon	64742-47-8	ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Stoddard Solvent	8052-41-3	ACGIH TLV (United States, 3/2019). TWA: 100 ppm 8 hours. TWA: 525 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 350 mg/m ³ 10 hours. CEIL: 1800 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 2900 mg/m ³ 8 hours.
Mica	12001-26-2	ACGIH TLV (United States, 3/2019). TWA: 3 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016). TWA: 3 mg/m ³ 10 hours. Form: Respirable
te of issue/Date of revision : 11/28/2019	Date of previous issue	: 5/9/2019 Version : 8 6/1
S0024600 KOOL SEAL® Premium Fibered Alu year)	minum Roof Coating (5	SHW-85-NA-GHS-MX

	· · · · · · · · · · · · · · · · · ·	
Aluminum	7429-90-5	fraction OSHA PEL Z3 (United States, 6/2016). TWA: 20 mppcf 8 hours. NIOSH REL (United States, 10/2016).
		TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total ACGIH TLV (United States, 3/2019). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ , (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ , (as Al) 8 hours. Form: Total dust
Perlite	93763-70-3	NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Heavy Aliphatic Solvent Cellulose	64742-82-1 9004-34-6	None. ACGIH TLV (United States, 3/2019). TWA: 10 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Kaolin	1332-58-7	ACGIH TLV (United States, 3/2019). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
Crystalline Silica, respirable powder	14808-60-7	OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m ³ / (%SiO2+2) 8 hours. Form: Respirable OSHA PEL (United States, 5/2018). TWA: 50 μg/m ³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2019). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016).
	e of previous issue	: 5/9/2019 Version : 8 7/18
KS0024600 KOOL SEAL® Premium Fibered Aluminum I year)	Roof Coating (5	SHW-85-NA-GHS-MX

•	• •	
		TWA: 0.05 mg/m ³ 10 hours. Form: respirable dust
1,3,5-Trimethylbenzene	108-67-8	ACGIH TLV (United States, 3/2019).
		TWA: 25 ppm 8 hours.
		TWA: 123 mg/m ³ 8 hours.
		NIOSH REL (United States, 10/2016).
		TWA: 25 ppm 10 hours.
		TWA: 125 mg/m ³ 10 hours.
1,2,4-Trimethylbenzene	95-63-6	ACGIH TLV (United States, 3/2019).
		TWA: 25 ppm 8 hours.
		TWA: 123 mg/m ³ 8 hours.
		NIOSH REL (United States, 10/2016).
		TWA: 25 ppm 10 hours.
		TWA: 125 mg/m ³ 10 hours.
Xylene, mixed isomers	1330-20-7	ACGIH TLV (United States, 3/2019).
		TWA: 100 ppm 8 hours.
		TWA: 434 mg/m ³ 8 hours.
		STEL: 150 ppm 15 minutes.
		STEL: 651 mg/m ³ 15 minutes.
		OSHA PEL (United States, 5/2018).
		TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
On stalling Cilica, som som inskla	4 4 0 0 0 7	-
Crystalline Silica, non-respirable	14808-60-7	OSHA PEL (United States, 5/2018).
		TWA: 50 μg/m ³ 8 hours. Form: Respirable
		dust OSHA PEL Z3 (United States, 6/2016).
		TWA: 30 mg/m ³ / (%SiO2+2) 8 hours. Form:
		Total dust

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits	
Petroleum refining, hydrotreated light distillate	64742-47-8	CA British Columbia Provincial (Canada, 5/2019). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapour) 8 hours. CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 200 mg/m ³ , (as total hydrocarbon vapour) 8 hours. CA Ontario Provincial (Canada, 1/2018). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapour) 8 hours.	
Stoddard solvent	8052-41-3	 CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 572 mg/m³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 5/2019). TWA: 290 mg/m³ 8 hours. STEL: 580 mg/m³ 15 minutes. CA Ontario Provincial (Canada, 1/2018). TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 525 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 1/2014). 	
ate of issue/Date of revision : 11/28/2019 Date	of previous issue	: 5/9/2019 Version : 8 8/	
60024600 KOOL SEAL® Premium Fibered Aluminum Ro year)	oof Coating (5	SHW-85-NA-GHS-MX	

Section 6. Exposu	e controis/personal prote	ection
Kaolin	1332-58-7	7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Alberta Provincial (Canada, 6/2018).
		8 hrs OEL: 2 mg/m ³ 8 hours. Form: Respirable CA British Columbia Provincial (Canada, 5/2019). TWA: 2 mg/m ³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m ³ 8 hours. Form: Respirable dust. CA Ontario Provincial (Canada, 1/2018). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 4 mg/m ³ 15 minutes. Form: respirable fraction TWA: 2 mg/m ³ 8 hours. Form: respirable fraction
Quartz	14808-60-7	 CA British Columbia Provincial (Canada, 5/2019). TWA: 0.025 mg/m³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust. CA Ontario Provincial (Canada, 1/2018). TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction
Xylene	1330-20-7	CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m ³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 5/2019). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m ³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013).
I Date of issue/Date of revision KS0024600 KOOL SEAL® Prer	l : <i>11/28/2019 Date of previous issue</i> nium Fibered Aluminum Roof Coating (5	L Version : 8 9/18 SHW-85-NA-GHS-MX
year)	nium nibered Alaminium Noor Coaling (5	3000-00-00-003-00A

-	-	
Quartz	14808-60-7	STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 0.1 mg/m ³ 8 hours. Form: Respirable dust.

Occupational exposure limits (Mexico)

Ingredient name	CAS #	Exposure limits	
Light Aliphatic Hydrocarbon	64742-47-8	ACGIH TLV (United States, 3/2019). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.	
Stoddard Solvent	8052-41-3	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 100 ppm 8 hours.	

Appropriate engineering controls Environmental exposure	 Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Emissions from ventilation or work process equipment should be checked to ensure
controls	they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection meas	<u>ires</u>
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Date of issue/Date of revision	: 11/28/2019 Date of previous issue : 5/9/2019 Version : 8 10/18

Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8	10/1
KS0024600	KOOL SEAL® Premiur	m Fibered Alumi	num Roof Coating (5		SHW-85-	NA-GHS-MX	
	year)						

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
рН	: Not available.
Melting point/freezing point	: Not available.
Boiling point/boiling range	: 141°C (285.8°F)
Flash point	: Closed cup: 41°C (105.8°F) [Tagliabue Closed Cup]
Evaporation rate	: 0.13 (butyl acetate = 1)
Flammability (solid, gas)	: Not available.
Lower and upper explosive	: Lower: 0.8%
(flammable) limits	Upper: 6%
Vapor pressure	: 0.69 kPa (5.17 mm Hg) [at 20°C]
Vapor density	: 5 [Air = 1]
Relative density	: 1.01
Solubility	: Not available.
Partition coefficient: n-	: Not available.
octanol/water	
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): <0.205 cm ² /s (<20.5 cSt)
Molecular weight	: Not applicable.
<u>Aerosol product</u>	
Heat of combustion	: 23.767 kJ/g

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Date of issue/Date	e of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version : 8	11/18
KS0024600	KOOL SEAL® Premiur	m Fibered Alum	inum Roof Coating (5		SHW-85-NA-	GHS-MX
	year)					

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Asphalt (Petroleum)	LD50 Oral	Rat	>5000 mg/kg	-
Cellulose	LD50 Oral	Rat	>5 g/kg	-
1,3,5-Trimethylbenzene	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LD50 Oral	Rat	5000 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
•	LD50 Oral	Rat	5 g/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
•	LD50 Oral	Rat	4300 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Stoddard Solvent	Eyes - Mild irritant	Human	-	100 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
1,3,5-Trimethylbenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
				mg	
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				mg	
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5	-
				mg	
	Skin - Mild irritant	Rat	-	8 hours 60 UI	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	
	Skin - Moderate irritant	Rabbit	-	100 %	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Asphalt (Petroleum) Crystalline Silica, respirable	-	2B 1	- Known to be a human carcinogen.
powder Xylene, mixed isomers	-	3	-
Crystalline Silica, non- respirable	-	I	Known to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Date of issue/Date of	revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8	12/18
	OOL SEAL® Premium ear)	n Fibered Alumin	num Roof Coating (5		SHW-85-I	NA-GHS-MX	

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation
Stoddard Solvent	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation
Heavy Aliphatic Solvent	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation
1,3,5-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
1,2,4-Trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
Xylene, mixed isomers	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Light Aliphatic Hydrocarbon Stoddard Solvent Mica Heavy Aliphatic Solvent	Category 2 Category 1 Category 1 Category 1	Not determined Not determined Inhalation Not determined	Not determined Not determined lungs central nervous system (CNS)
Kaolin Crystalline Silica, respirable powder Xylene, mixed isomers	Category 1 Category 1 Category 2	Inhalation Inhalation Not determined	lungs Not determined Not determined

Aspiration hazard

Name	Result
Light Aliphatic Hydrocarbon	ASPIRATION HAZARD - Category 1
Stoddard Solvent	ASPIRATION HAZARD - Category 1
Heavy Aliphatic Solvent	ASPIRATION HAZARD - Category 1
1,3,5-Trimethylbenzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1

Information on the likely : routes of exposure

year)

: Not available.

Potential acute health eff Eye contact		Causes serious eye irritation.		
Inhalation	:	Can cause central nervous system (CNS) depression. dizziness. May cause respiratory irritation.	May cause drowsiness or	
Skin contact	:	No known significant effects or critical hazards.		
Ingestion	:	Can cause central nervous system (CNS) depression. enters airways.	May be fatal if swallowed and	
Symptoms related to the	phys	sical, chemical and toxicological characteristics		
Symptoms related to the Eye contact				
		sical, chemical and toxicological characteristics Adverse symptoms may include the following: pain or irritation watering	Version : 8	13/18

Section 11. Toxicological information

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: No specific data.
Ingestion	: Adverse symptoms may include the following: nausea or vomiting

Delayed and immediate eff	fects and also chronic effects from short and long term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health ef	<u>fects</u>
Not available.	
General	: Causes damage to organs through prolonged or repeated exposure.
Carcinogenicity	: May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity Acute toxicity estimates Not available.

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Light Aliphatic Hydrocarbon	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days 🥄
Aluminum	Acute LC50 38000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 120 µg/l Fresh water	Fish - Oncorhynchus mykiss - Embryo	96 hours
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
1,3,5-Trimethylbenzene	Acute LC50 13000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 12520 µg/l Fresh water	Fish - Carassius auratus	96 hours
	Chronic NOEC 400 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Date of issue/Date of revision	: 11/28/2019 Date of previous issue	: 5/9/2019 Version : 8	14/18
KS0024600 KOOL SEAL® Pr year)	remium Fibered Aluminum Roof Coating (5	SHW-85-NA-	GHS-MX

Section 12. Ecological information						
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/l Marine water	Crustaceans - Elasmopus pectenicrus - Adult	48 hours			
Acute LC50 7720 µg/l Fresh water		Fish - Pimephales promelas	96 hours			
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours			
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours			

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene, mixed isomers	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Heavy Aliphatic Solvent 1,3,5-Trimethylbenzene	-	10 to 2500 161	high 📃
1,2,4-Trimethylbenzene Xylene, mixed isomers	-	243 8.1 to 25.9	low low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ΙΑΤΑ	IMDG	
UN number	UN1263	UN1263	UN1263	UN1263	UN1263	
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL			PAINT RELATED MATERIAL. Marine pollutant (Light Aliphatic Hydrocarbon, Fuller's Earth)	
Date of issue/Date of revision : 11/28/2019 Date of previous issue : 5/9/2019 Version : 8 1						
KS0024600 KOOL SEAL® Premium Fibered Aluminum Roof Coating (5 SHW-85-NA-GHS-MX year)						

Section 14. Transport informatio	n
----------------------------------	---

hazard class(es)	PLANMARE LUCIO				
	3	3			
Packing group	III	III	111		
Environmental hazards	No.	No.	No.	No.	Yes.
Additional information	This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials. ERG No.	ERG No.	- ERG No.	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤ kg. <u>Emergency</u> <u>schedules</u> F-E, S E
	128	128	128		
Special precaution	consid mode suitabl to ship of the dange	er container sizes. of transport (sea, ai y for that mode of ti ment, and complian person offering the	The presence of a r, etc.), does not i ransport. All packance with the applic product for transpeter trained on all of t	ded for informational pla a shipping description f indicate that the product aging must be reviewed cable regulations is the port. People loading and the risks deriving from uations.	or a particular ct is packaged d for suitability prior sole responsibility d unloading
ransport in bulk ac o Annex II of MARF he IBC Code	-	ilable.			
		shipping name	: Not availab		
	Ship ty		: Not availab	-	
	Pollutic	on category	: Not availab	ole.	

International lists	: Australia inventory (AICS): Not determined.	
	China inventory (IECSC): Not determined.	
	Japan inventory (ENCS): Not determined.	
	Japan inventory (ISHL): Not determined.	
	Korea inventory (KECI): Not determined.	
	New Zealand Inventory of Chemicals (NZIoC): Not determined.	
	Philippines inventory (PICCS): Not determined.	
	Taiwan Chemical Substances Inventory (TCSI): Not determined.	
	Thailand inventory: Not determined.	
	Turkey inventory: Not determined.	

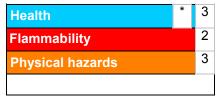
Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8	16/18
KS0024600	KOOL SEAL® Premium year)	1 Fibered Alumir	num Roof Coating (5		SHW-85-1	NA-GHS-MX	

Section 15. Regulatory information

Vietnam inventory: Not determined.

Section 16. Other information





The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPEČIFÍC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), lungs) - Category 1	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing	: 11/28/2019
Date of issue/Date of revision	: 11/28/2019
Date of previous issue	: 5/9/2019
Version	: 8
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Date of issue/Date	of revision	: 11/28/2019	Date of previous issue	: 5/9/2019	Version	:8	17/18
KS0024600 KOOL SEAL® Premium Fibered Aluminum Roof Coating (5			SHW-85-N	A-GHS-MX			
year)							

Section 16. Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buver/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.