

Product name: PENNGUARD™ ADHESIVE MEMBRANE PART A

Issue date: 07-29-2022

Revision date: 10-30-2023

Version #: 05

SDS No: 5944

SECTION 1 Chemical product and company identification

Chinese name of chemical	PENNGUARD™ ADHESIVE MEMBRANE PART A
English name of chemical	PENNGUARD™ ADHESIVE MEMBRANE PART A
Company Name	ErgonArmor, a division of Ergon Asphalt & Emulsions, Inc.
Address	2829 Lakeland Drive Jackson, MS 39232 USA
After hours telephone number	1-800-222-7122
Normal work hours telephone number	1-877-982-7667
Website	www.ergonarmor.com
E-mail	sds@ergon.com
Emergency 24-hour telephone number	CHEMTREC: North America 1-800-424-9300 International 1-800-527-3887
Information on operation hours	8:00 a.m. to 5:00 p.m.
Manufacturer:	Ergon, Inc. P.O. BoX 1639 Jackson, MS 39181 USA
EU Contact:	Ergon International, Inc. Drève Richelle 161 Building C B-1410 Waterloo, Belgium
Emergency Phone Numbers:	
US Customer Service:	+1-800-222-7122
Chemtrec:	+1-800-424-3900 After Business Hours (North America) +1-703-527-3887 (International) 4001-204937 (China) See section 16 for additional CHEMTREC Hotline Numbers
E-mail:	sds@ergon.com
Recommended use and Limitations on use	
Recommended use	Not available.
Issue date	07-29-2022
Revision date	10-30-2023
Supersedes date	08-28-2023

SECTION 2 Hazards identification

Emergency overview	May be ignited by heat, sparks or flames. May cause drowsiness or dizziness. May cause cancer. Causes skin irritation. May cause genetic defects. Prolonged exposure may cause chronic effects.
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GHS hazard categories

Physical hazards	Flammable liquids	Category 3
Health hazards	Skin corrosion/irritation	Category 2
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Not classified.	

Label elements**Pictograms****Signal word**

Danger

Hazard statement

H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H336	May cause drowsiness or dizziness.

Precautionary statement**Prevention**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P264	Wash thoroughly after handling.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P243	Take precautionary measures against static discharge.
P242	Use only non-sparking tools.
P240	Ground/bond container and receiving equipment.
P271	Use only outdoors or in a well-ventilated area.

Response

P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P308 + P311	If exposed or concerned: Call a poison center/doctor.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a poison center/doctor if you feel unwell.
P321	Specific treatment see Section 4 of this SDS.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use appropriate media for extinction.

Safety storage

P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P235	Keep cool.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Physical and chemical hazards

Flammable liquid and vapor.

Health hazards

May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful. Causes skin irritation. Direct contact with eyes may cause temporary irritation.

Environmental hazards

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the environment.

Supplemental information

None.

SECTION 3 Composition/information on ingredients**Substance/mixture**

Mixture

Chemical name**Concentration (%)****CAS Number**

沥青 ASPHALT	40 - 50	8052-42-4
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矿油精 MINERAL SPIRITS	10 - 15	64742-48-9
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Chemical name

石英 QUARTZ	< 1	14808-60-7
Other components below reportable levels	42.37	

SECTION 4 First aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a poison center or doctor/physician if you feel unwell.
Skin contact	For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Rinse skin with water/shower. Wash contaminated clothing before reuse. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Call a POISON CENTER or doctor/physician.
Most important symptoms and health effects	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.
Personal protection for first-aid responders	Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In case of shortness of breath, give oxygen. Keep victim under observation.
Notes to physician	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. In case of shortness of breath, give oxygen. Keep victim warm.

SECTION 5 Fire-fighting measures

Extinguishing media	Foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Fire may produce irritating, corrosive and/or toxic gases.
Special fire fighting procedures	None.
Protection of fire-fighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.
General fire hazards	Flammable liquid and vapor.
Specific methods	Move container from fire area if it can be done without risk. In the event of fire and/or explosion do not breathe fumes.

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Keep unnecessary personnel away.
For emergency responders	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid breathing mist/vapors. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
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Clean-up methods and materials and containment measures

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Prevention of secondary hazards

Not available.

SECTION 7 Handling and storage**Handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Do not empty into drains. Observe good industrial hygiene practices. Hydrogen sulfide, a very highly toxic gas, may be present with this material. Keep face clear of tank and/or tank car openings.

Storage

Store locked up. Keep containers tightly closed. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

SECTION 8 Exposure controls/personal protection**Exposure limits****Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2019)**

Components	Type	Value	Form
ASPHALT (CAS 8052-42-4)	PC-TWA	5 mg/m ³	Fume.
QUARTZ (CAS 14808-60-7)	PC-TWA	0.5 mg/m ³	Total dust.
		0.2 mg/m ³	Respirable dust.

Biological limit values**ACGIH Biological Exposure Indices (BEI)**

Components	Value	Determinant	Specimen	Sampling Time
ASPHALT (CAS 8052-42-4)	2.5 µg/l	1-Hydroxypyrene, with hydrolysis (1-HP)	Urine	*

* - For sampling details, please see the source document.

Monitoring methods

Follow standard monitoring procedures.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Provide eyewash station and safety shower.

Personal protective equipment**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Wear appropriate chemical resistant gloves. Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye protection

Wear safety glasses; chemical goggles (if splashing is possible).

Skin and body protection

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Hygiene measures	Observe any medical surveillance requirements. When using, do not eat, drink or smoke. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
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SECTION 9 Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid. Viscous. Semi-solid at ambient temperature
Color	Brown to Black
Odor	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	> 100.0 - < 140.0 °F (> 37.8 - < 60.0 °C) Cleveland Open Cup
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Flammability (solid, gas)	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

SECTION 10 Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Stable under normal temperature conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Fluorine.
Hazardous decomposition products	Irritants. Toxic gas.

SECTION 11 Toxicological information

Acute toxicity	Not known. Not classified.
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Product	Species	Test Results
PENNGUARD™ ADHESIVE MEMBRANE PART A		
<u>Acute</u>		
Oral		
LD50	Rat	847971 mg/kg

Components	Species	Test Results
ASPHALT (CAS 8052-42-4)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.	
Symptoms	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.	
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitizer	Causes skin irritation.	
Germ cell mutagenicity	May cause genetic defects.	
Carcinogenicity	May cause cancer.	
China OELs for hazardous agents in the workplace: Carcinogen Category		
Asphalt (petroleum) fume, as benzene soluble matter (CAS 8052-42-4)	Possible human carcinogen.	
Silica, respirable dust, 10% < = free SiO2 < = 50% (CAS 14808-60-7)	Carcinogenic to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
ASPHALT (CAS 8052-42-4)	2B Possibly carcinogenic to humans.	
MINERAL SPIRITS (CAS 64742-48-9)	3 Not classifiable as to carcinogenicity to humans.	
QUARTZ (CAS 14808-60-7)	1 Carcinogenic to humans.	
Toxic to reproduction	Not classified.	
Specific target organ toxicity following single exposure	May cause drowsiness or dizziness.	
Specific target organ toxicity following repeated exposure	Not available.	
Aspiration hazard	Not classified.	
Chronic effects	Prolonged exposure may cause chronic effects.	

SECTION 12 Ecological information

Ecotoxicological data			
Product	Species		Test Results
PENNGUARD™ ADHESIVE MEMBRANE PART A			
Aquatic			
Crustacea	EC50	Daphnia	12244.0615 mg/l, 48 hours
Fish	LC50	Fish	50774.9375 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	87327.4688 mg/l, 48 hours estimated
Fish	LC50	Fish	54994.2461 mg/l, 96 hours estimated
Ecotoxicity	Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.		
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
Bioaccumulation			
Mobility in soil	No data available for this product.		
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

SECTION 13 Disposal considerations

Residual waste	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Offer rinsed packaging material to local recycling facilities.
Local disposal regulations	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Dispose of this material and its container to hazardous or special waste collection point. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 Transport information**CNDG**

UN number	UN1999
UN proper shipping name	ARS, LIQUID, including road asphalt and oils, bitumen and cut backs
Transport hazard class(es)	
Class	3
Subsidiary hazard	-
Packing group	III
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN1999
UN proper shipping name	Tars, liquid including road asphalt and oils, bitumen and cut backs
Transport hazard class(es)	
Class	3
Subsidiary hazard	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	

Passenger and cargo aircraft	Allowed with restrictions.
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Cargo aircraft only	Allowed with restrictions.
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IMDG

UN number	UN1999
UN proper shipping name	TARS, LIQUID including road oils, and cutback bitumens
Transport hazard class(es)	
Class	3
Subsidiary hazard	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

CNDG; IATA; IMDG

General information

If shipped by ground in individual containers that are less than 119 gallons (450 L): Not regulated as a hazardous material (49 CFR 173.121). If shipped by vessel in individual containers that are less than 119 gallons (450 L) each, then IMDG 2.3.2.5 exception applies. Not subject to the provisions for marking, labelling, and testing of packages. "Transport in accordance with 2.3.2.5 of the IMDG code."

SECTION 15 Regulatory information**Law of the People's Republic of China on Prevention and Control of Occupational Diseases****Classification of occupational disease hazards**

Petroleum pitch (CAS 8052-42-4)

Silica dust (free SiO₂ content ≥10%) (CAS 14808-60-7)

Regulations on the Control over Safety of Dangerous Chemicals**Catalog of Hazardous Chemicals**

Solvent naphtha [closed cup flash point ≤ 60 .degree.C] (CAS 64742-48-9)

Provision on the Environmental Administration of New Chemical Substances**China Inventory of Existing Chemical Substances**

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Other regulations

This safety data sheet conforms to the following laws, regulations and standards:

Measures for the Safe Use of Chemicals in Workplaces

General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)

Regulations on Labor Protection in Workplaces Where Toxic Products Are Used

Packing Symbol of Dangerous Goods(GB190-2009)

Regulations on the Control over Safety of Dangerous Chemicals

Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)

Packing - Pictorial Marking for Handling of Goods (GB/T191-2008)

This safety data sheet was prepared in accordance with GB/T 16483-2008: Safety Data Sheet for Chemical Products - Content and Order of Sections. This material safety data sheet was prepared in accordance with the General Rules for the Preparation of Chemical Safety Data Sheets (GB16483-2000). Additional information is given in the Material Safety Data Sheet.

China. National Catalogue of Hazardous Wastes

ASPHALT (CAS 8052-42-4)

MINERAL SPIRITS (CAS 64742-48-9)

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

ASPHALT (CAS 8052-42-4)

SECTION 16 Other information**References**

GB6944-2012: Classification and Code of Dangerous Goods.

GB12268-2012: List of Dangerous Goods.

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. Ergon Armor cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.