

1. Identification

Product identifier **BLACKHAWK™ 5710 MEMBRANE PART A**
Other means of identification None.
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Armor Limited, Inc.
Address 2410 US-15 South, Sumter, SC 29150

After hours telephone number 1-877-982-7667
Normal work hours telephone number 1-877-982-7667
Website www.armor-inc.com
E-mail customerservice@armor-inc.com
Emergency 24-hour telephone number CHEMTREC North America: +1-800-424-9300, International: +1-703-527-3887
Information on operation hours 8:00 a.m. to 5:00 p.m.

2. Hazard(s) identification

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

Label elements


Signal word Danger

Hazard statement Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause genetic defects. May cause cancer. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement
Prevention

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

| | |
|--|---|
| Response | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Specific treatment see Section 4 of this SDS. If exposed or concerned: Get medical advice/attention. In case of fire: Use appropriate media to extinguish. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep cool. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|----------------------|-----------|
| ASPHALT | | 8052-42-4 | 40 - 50 |
| MINERAL SPIRITS | | 8052-41-3/64742-48-9 | 10 - 15 |
| QUARTZ | | 14808-60-7 | < 1 |
| Other components below reportable levels | | | 40 - < 50 |

4. First-aid measures

| | |
|---|---|
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off immediately with soap and plenty of water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. |
| Ingestion | Rinse mouth. 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. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician or poison control center immediately. |
| Most important symptoms/effects, acute and delayed | May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. |
| General information | Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. |

5. Fire-fighting measures

| | |
|--|--|
| Suitable extinguishing media | Water fog. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire fighting equipment/instructions | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. In the event of fire, cool tanks with water spray. In case of fire and/or explosion do not breathe fumes. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| General fire hazards | Flammable liquid and vapor. |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). 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. 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.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewer, basements or confined areas. Take precautionary measures against static discharge. Use only non-sparking tools.

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. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. For waste disposal, see section 13 of the SDS. Put material in suitable, covered, labeled containers.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe 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. When using do not smoke. 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. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store locked up. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep away from heat and sources of ignition. Prevent electrostatic charge build-up by using common bonding and grounding techniques.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value | Form |
|-------------------------|------|------------------------|------------------|
| QUARTZ (CAS 14808-60-7) | PEL | 0.05 mg/m ³ | Respirable dust. |

US. OSHA Table Z-3 Permissible Exposure Limits (PEL) for Mineral Dusts (29 CFR 1910.1000)

| Components | Type | Value | Form |
|-------------------------|------|-----------------------|-------------|
| QUARTZ (CAS 14808-60-7) | TWA | 0.1 mg/m ³ | Respirable. |
| | | 2.4 mppcf | Respirable. |

US. ACGIH Threshold Limit Values (TLV)

| Components | Type | Value | Form |
|-------------------------|------|-------------------------|----------------------|
| ASPHALT (CAS 8052-42-4) | TWA | 0.5 mg/m ³ | Inhalable fume. |
| QUARTZ (CAS 14808-60-7) | TWA | 0.025 mg/m ³ | Respirable fraction. |

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

| Components | Type | Value |
|-------------------------|------|----------------------|
| QUARTZ (CAS 14808-60-7) | IDLH | 50 mg/m ³ |

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

| Components | Type | Value | Form |
|-------------------------|---------|------------------------|------------------|
| ASPHALT (CAS 8052-42-4) | Ceiling | 5 mg/m ³ | Fume. |
| QUARTZ (CAS 14808-60-7) | TWA | 0.05 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.

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

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

Other

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

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. 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. Do not get in eyes, on skin, on clothing.

9. Physical and chemical properties**Appearance**

Liquid.

Physical state

Liquid.

Form

Liquid. Viscous. Semi-solid at ambient temperature

Color

Brown to Black

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

≥ 100.0 - ≤ 140.0 °F (≥ 37.8 - ≤ 60.0 °C) Cleveland Open Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Explosive limit - lower (%)**

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative 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.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Strong reducing agents. Alkalines. Acids. This product reacts with hydrofluoric acid. Halogens.

Hazardous decomposition products Carbon dioxide. Carbon monoxide.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause drowsiness or dizziness. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Headache. Nausea, vomiting.

Skin contact Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Eye contact Causes serious eye irritation.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness or dizziness. Headache. Nausea, vomiting. Coughing. Skin irritation. May cause redness and pain. Severe eye irritation. Shortness of breath. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Not classified.

| Components | Species | Test Results |
|-------------------------|---------|--------------|
| ASPHALT (CAS 8052-42-4) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation May be irritating to eyes.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Not a skin sensitizer.

Germ cell mutagenicity May cause genetic defects.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

| | |
|--|---|
| ASPHALT (CAS 8052-42-4) | 2B Possibly carcinogenic to humans. |
| MINERAL SPIRITS (CAS 8052-41-3/64742-48-9) | 3 Not classifiable as to carcinogenicity to humans. |
| QUARTZ (CAS 14808-60-7) | 1 Carcinogenic to humans. |

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

| | |
|-------------------------|--------|
| QUARTZ (CAS 14808-60-7) | Cancer |
|-------------------------|--------|

US. National Toxicology Program (NTP) Report on Carcinogens

ASPHALT (CAS 8052-42-4)

Known To Be Human Carcinogen.

QUARTZ (CAS 14808-60-7)

Known To Be Human Carcinogen.

| | |
|---|--|
| Reproductive toxicity | Not classified. |
| Specific target organ toxicity - single exposure | May cause drowsiness or dizziness. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not classified. |
| Chronic effects | Prolonged exposure may cause chronic effects. Prolonged inhalation may be harmful. |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Product | Species | Test Results | |
|---------------------------------|---------|--------------|--------------------------------|
| BLACKHAWK™ 5710 MEMBRANE PART A | | | |
| Aquatic | | | |
| Crustacea | EC50 | Daphnia | 4289.7461 mg/l, 48 hours |
| Fish | LC50 | Fish | 262.6234 mg/l, 96 hours |
| <i>Acute</i> | | | |
| Crustacea | EC50 | Daphnia | 87600 mg/l, 48 hours estimated |
| Fish | LC50 | Fish | 59000 mg/l, 96 hours estimated |

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Dispose of this material and its container to hazardous or special waste collection point. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. 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).

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.

14. Transport information

| | |
|-------------------------------------|---|
| DOT | |
| UN number | UN1999 |
| UN proper shipping name | Tars, liquid including road oils and cut back bitumens |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary hazard | - |
| Label(s) | 3 |
| Packing group | III |
| Environmental hazards | |
| Marine pollutant | No. |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. 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) |
| Special provisions | B1, B13, IB3, T1, TP3 |

| | |
|-----------------------------|-----|
| Packaging exceptions | 150 |
| Packaging non bulk | 203 |
| Packaging bulk | 242 |

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. |
| Cargo aircraft only | Allowed with restrictions. |

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.

DOT



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."

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

ASPHALT (CAS 8052-42-4)

Listed.

MINERAL SPIRITS (CAS 8052-41-3/64742-48-9)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

QUARTZ (CAS 14808-60-7)

Cancer
lung effects
immune system effects
kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation
Germ cell mutagenicity
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

ASPHALT (CAS 8052-42-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

MINERAL SPIRITS (CAS 8052-41-3/64742-48-9)

QUARTZ (CAS 14808-60-7)

California Proposition 65



WARNING: WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

QUARTZ (CAS 14808-60-7)

Listed: October 1, 1988

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia | Australian Inventory of Industrial Chemicals (AICIS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|-------------------------------|
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | 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).

16. Other information, including date of preparation or last revision

Issue date 10-30-2023

Revision date 06-17-2024

Version # 04

NFPA ratings
 Health: 2
 Flammability: 2
 Instability: 0

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.