

ArmorWall VP Structural Insulated Sheathing™

Safety Data Sheet (SDS)

SECTION 1.0 - IDENTIFICATION

1.1 - Product Identifier

Product Form Fused multi-component wall panel.
Product Identifier ArmorWall VP.

1.2 - Product Use

Multi-component Structural Integrated Sheathing with Vapor Permeable Coating for Interior/Exterior wall assembly.

1.3 - Product Supplier

Manufacturing and Distribution Max-Life LLC
Address 1225 Chuck Taylor Lane Salisbury, North Carolina 28147
Website www.maxlifeindustries.com
Customer Support Email cs@maxlifeindustries.com
Office Telephone Number 704-636-2411
Plant Telephone Number 704-636-0292

1.4 - Emergency Contact

Emergency Telephone Contact your local emergency services.

SECTION 2.0 - HAZARDS IDENTIFICATION

Urethane Insulation Component

2.1 - Classification of the Substance Mixture

Classification (GHS-US)
Skin Irritation Category 4
Eye Irritation Category 3

2.2 - Label Elements

GHS-US Labeling

Hazard Statements (GHS-US) H320 - Dust may cause eye irritation.
H335 - Dust may cause respiratory irritation.

Precautionary statements (GHS-US) P260 - Do not breathe dust.
P282 - Wear protective gloves/eye protection/face protection.
P303 - If on Skin: Wash with plenty of soap and water.
P305 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 - Other hazards

- Rigid foam dust from fabricating operations is an irritant and is flammable. Dust should be collected at the point of generations and stray dust should be regularly swept up.
- Large amounts of rigid polyurethane foam assembled in one place, such as for processing into finished products or in storage, present a potential fire hazard. Once ignited, these foams may spread flame rapidly and produce intense heat, dense smoke, and toxic gases. Raw foam and fabricated items should be stored indoors, away from fabricating operations, and be protected by automatic sprinklers. Access aisles should be maintained between foam plies.

2.4 - Unknown acute toxicity (GHS-US)

No data available.

Magnesium Oxide Sheathing Component

2.1 - Mixture Classification

Carc. Not classified as carcinogen. No known toxicity effects.

2.2 - Label Elements

Eyes Dust and chip form - irritation hazard.
Inhalation Dust and chip form - No hazard.
Skin Fiberglass mesh may cause itching/irritation when cut.
Ingestion No Known hazard.
Carc. Not classified as carcinogen. No known toxicity effects.
Emergency Overview Prolonged exposure to dust while cutting may be irritating to eyes, nose, and throat. Score and snap generates less dust.

2.3 - Other Hazards

No data available.

2.4 - Unknown Acute Toxicity (GHS-US)

No data available.

Vapor-Permeable Coating Component

2.1 - Mixture Classification

Classification (GHS-US)

Skin Sens.	1	Skin Sensitization
Carc.	2	Carinogenicity
Muta.	1B (fertility)	Reproductive Toxicity
Rep.	1B (unborn child)	Reproductive Toxicity
STOT RE.	1 (by inhalation)	Specific Target Organ Toxicity - Repeated Exposure
Aquatic Acute	3	Hazardous to the Aquatic Environment - Acute
Aquatic Chronic	3	Hazardous to the Aquatic Environment - Chronic

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SECTION 2.0 - HAZARDS IDENTIFICATION

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Vapor-Permeable Coating Component

2.2 - Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS07

GHS08

Signal word (GHS-US)

Danger

Hazard Statements (GHS-US)

H317 - May cause an allergic skin reaction.
 H351 - Suspected of causing cancer.
 H340 - May cause genetic defects.
 H360 - May damage fertility. May damage the unborn child.
 H372 - Causes damage to organs (lung) through prolonged or repeated exposure (Inhalation).
 H402 - Harmful to aquatic life.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS-US)

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P270 - Do not eat, drink, or smoke when using this product.
 P273 - Avoid release to the environment.
 P280 - Wear nitrile gloves and safety glasses.
 P313+P333 - If skin irritation or rash occurs; Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P405 - Store locked up.
 P501 - Dispose of contain in accordance with local, regional, or national regulations.
 P260 - Do not breathe dust, gas, mist, vapors.
 P264 - Wash hands thoroughly after handling.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P314 - Get medical advice/attention if you feel unwell.
 P308+P311 - If exposed or concerned: Call a poison center and/or call a doctor.
 P303 - If on skin (or hair): Wash with plenty of water.
 P333 - If skin irritation or rash occurs: call a poison center.
 P352 - Wash with plenty of water if on skin.

2.3 - Other hazards

No additional information available.

2.4 - Unknown acute toxicity (GHS-US)

No data available.

SECTION 3.0 - COMPOSITION/INFORMATION ON INGREDIENTS

Urethane Insulation Component

3.1 - Substance

Not applicable.

3.2 - Mixture

Not applicable.

Magnesium Oxide Sheathing Component

3.1 Substance

Not applicable.

3.2 Mixture

Chemical Name	%
Magnesium Oxide (MgO)	42-61.5
Magnesium Chloride (MgCl ₂)	35-56
Perlite	1-6
Recycled Filtered Wood Shavings	2-7
Phosphate (PO ₄)	1-3
Fiberglass Mesh	1-3

Vapor-Permeable Coating Component

3.1 - Substance

Not applicable.

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SECTION 3.0 - COMPOSITION/INFORMATION ON INGREDIENTS

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Vapor-Permeable Coating Component

3.2 - Mixture

Name	Product Identifier	%
Crystalline Silica	(CAS No.) 14808-60-7	>=25-50
Limestone	(CAS No.) 1317-65-3	>=10-20
Kieselguhr, Soda Ashe Flux-Calcined	(CAS No.) 68855-54-9	>=1-3
Titanium Dioxide	(CAS No.) 13463-67-7	>=1-3
Ethanol, 2-(Hydroxymethylamino)	(CAS No.) 34375-28-5	>=0.1-0.2
Diuron	(CAS No.) 330-54-1	>=0-0.1
1, 2-Benzisothiazol-3(2H)-One	(CAS No.) 2634-33-5	>=0-0.1
Carbamic Acid, Butyl-, 3-Iodo-2-Propynyl Ester	(CAS No.) 55406-53-6	>=0-0.1

SECTION 4.0 - FIRST-AID MEASURES

Urethane Insulation Component

4.1 - Description of first-aid measures

First-aid measures after inhalation	Move to fresh air if symptoms develop. If breathing is difficult, give oxygen and call physician.
First-aid measures after eye contact	Flush with water for at least 15 minutes. See a physician if irritation develops.
First-aid measures after ingestion	Rinse mouth.
First-aid measures after skin contact	Wash with soap and water.

4.2 - Most important symptoms and effects, both acute and delayed

Acute eye or respiratory irritation, characterized by eye watering, coughing or sneezing. Treat symptomatically.

4.3 - Indication of any immediate medical attention and special treatment needed

No additional information available.

Magnesium Oxide Sheathing Component

4.1 Description of first-aid measures

First-aid measures after inhalation	Move to fresh air environment. Contact physician if irritation persists.
First-aid measures after skin contact	Wash with soap and water.
First-aid measures after eye contact	Check for and remove any contact lenses. Immediately flush eyes with clean water. Contact physician if irritation persists.
First-aid measures after ingestion	Rinse mouth and seek medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

Medical Conditions Generally Aggravated by

Exposure Asthma: Inhalations of dust.

4.3 Indication of any immediate medical attention and special treatment required

No additional information available.

Vapor-Permeable Coating Component

4.1 - Description of first-aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs; Get medical advice/attention. Specific treatment (see...no this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking, or redness persist.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2 - Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation May cause an allergic skin reaction. May cause cancer by inhalation.

4.3 - Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5.0 - FIRE-FIGHTING MEASURES

Urethane Insulation Component

5.1 - Extinguishing media

Suitable extinguishing media	Water, dry chemicals, CO ₂
Unsuitable extinguishing media	None.

5.2 - Special hazards arising from the substance or mixture

No additional information available

5.3 - Advice for firefighters

Firefighting instructions A self-contained breathing apparatus should be worn to protect against toxic and irritating vapors.

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SECTION 5.0 - FIRE-FIGHTING MEASURES

Section continued from page 3

Magnesium Oxide Sheathing Component

5.1 - Extinguishing Media

Extinguishable Media Product does not ignite. Use fire extinguishing media appropriate for surrounding materials.

5.2 - Special Hazards Arising from the Substance or Mixture

Special Fire Fighting Procedures Local surfaces may be cooled with water, but product will not be hot to the touch even after intense heat exposure.

5.3 - Advice for firefighters

Panel is non-flammable and non-combustible.

Vapor-Permeable Coating Component

5.1 - Extinguishing media

Suitable extinguishing media Foam. Dry Powder. Carbon Dioxide. Water Spray. Sand.

Unsuitable extinguishing media Do not use a heavy water system.

5.2 - Special hazards arising from the substance or mixture

No additional information available.

5.3 - Advice for firefighters

Firefighting instructions Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6.0 - ACCIDENTAL RELEASE MEASURES

Urethane Insulation Component

6.1.1 - For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2 - For emergency responders

Protective equipment Wear eye and respiratory protection from dust.

Emergency procedures Remove ignition sources.

6.2 - Environmental precautions

None.

6.3 - Methods and material for containment and cleaning up

Methods for cleaning up Waste material should be disposed of under conditions which meet federal, state, and local environmental regulations.

6.4 - Reference to other sections

None.

Magnesium Oxide Sheathing Component

6.1.1 - For Non-emergency Personnel

See Section 8 of the SDS for Personal Protective Equipment.

6.1.2 - For Emergency Responders

See Section 8 of the SDS for Personal Protective Equipment.

6.2 - Environmental Precautions

No specific clean-up procedure noted.

6.3 - Methods and material for containment and cleaning up

Dust and chips may be swept, scooped, and/or vacuumed for removal.

6.4 - Reference to Other Sections

No additional references.

Vapor-Permeable Coating Component

6.1.1 - For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2 - For emergency responders

Protective equipment Equip cleanup crew with proper protection.

Emergency procedures Ventilate area.

6.2 - Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewer or public waters.

6.3 - Methods and material for containment and cleaning up

Methods for cleaning up Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 - Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7.0 - HANDLING AND STORAGE

Urethane Insulation Component

7.1 - Precautions for safe handling

Precautions for safe handling None.

7.2 - Conditions for safe storage, including any incompatibilities

Storage conditions None.

Incompatible products No additional information.

Incompatible materials No additional information.

7.3 - Specific end use(s)

No Additional information available.

Magnesium Oxide Sheathing Component

7.1 - Precautions and Safe Handling

Use work methods that minimize the creation of dust. Try to avoid the inhalation of dust wherever possible. Wear appropriate personal protective equipment. Wash hands after use. Observe good industrial hygiene practices. Ensure that forklift or similar equipment is rated as capable of lifting and moving loads. Forks should extend completely under the entire load. Forks should be extended as wide as practical.

Boards are heavy, awkward loads and pose the risk of severe back injury. Always use proper lifting techniques.

7.2 - Conditions of Safe Storage, Including any Incompatibilities

Board should be stored in a cool dry environment and should remain in the manufacturer's packaging bearing the brand name and manufacturer's logo and Listing Number until ready for use.

Board should be stored on the manufacturer's pallets off the ground and away from standing water. Cover with a waterproof material when stored outdoors or on site to protect against weather, direct sunlight, surface contamination and construction traffic.

7.3 - Specific end use(s)

No additional information available.

Vapor-Permeable Coating Component

7.1 - Precautions for safe handling

Precautions for safe handling Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2 - Conditions for safe storage, including any incompatibilities

Storage conditions Keep only in the original container in a cool, well ventilated place away from: Keep container closed when not in use.

Incompatible products Strong bases. Strong acids.

Incompatible materials Sources of ignition.

7.3 - Specific end use(s)

No Additional information available.

SECTION 8.0 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Urethane Insulation Component

8.1 - Exposure Limits

Polyurethane Foam

Not listed as a carcinogen (NTA, IARC, OSHA).

8.2 - Control Parameters

None.

8.3 - Exposure Controls

Respiratory Protection Dust mask when fabricating or cutting.

Hand, Eye, Skin, and Body Protection Wear goggles or chemical safety glasses and chemically resistant rubber or plastic gloves. Avoid eye and skin contact. Eye wash system and showers should be available.

Magnesium Oxide Sheathing Component

8.1 - Exposure Limits

Occupational Exposure Limits US OSHA Table Z-1 Limits for Air Contaminants

Components	CAS #	OSHA PEL Value	Form
Magnesium Oxide	1309-48-4	15 mg/m ³	Nuisance particulate
Perlite	130885-09-5	5 mg/m ³	Nuisance dust
Fiberglass Mesh	65997-17-3	15 mg/m ³	Total dust
		5 mg/m ³	Respirable fraction

US ACGIH Threshold Limit Values

Components	CAS #	ACGIH-TLV Value	Form
Magnesium Oxide	1309-48-4	10 mg/m ³	Nuisance particulate
Perlite	130885-09-5	10 mg/m ³	Total nuisance dust
Fiberglass Mesh	65997-17-3	5 mg/m ³	Inhalable
		1 f/cc	Respirable fibers

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SECTION 8.0 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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Magnesium Oxide Sheathing Component

8.2 - Control Parameters

Ventilation General under standard conditions. Local exhaust/extraction is recommended in high dust environments.

8.3 - Exposure Controls

Skin Protection Protective gloves and/or clothing.

Industrial Hygiene Practices It is a good industrial hygiene practice to minimize direct skin contact for extended periods of time wherever possible.

Eye Protection Safety glasses or goggles.

Respiratory Protection Approved dust mask or respirator.

Other Protective Clothing or Equipment None.

Work/Hygiene Practices General clean-up after exposure. Score and snap generates less dust than sawing, thus minimizing nuisance dust.

Vapor-Permeable Coating Component

8.1 - Exposure Limits

No Additional Information.

8.2 - Control parameters

Quartz (14808-60-7)

USA ACGIH ACGIH TWA (mg/m³) 0.025 R

USA OSHA Remark (US OSHA) (3) See Table Z-3.

Titanium Dioxide (13463-67-7)

USA ACGIH ACGIH TWA (mg/m³) 1 mg/m³

USA ACGIH Remark (ACGIH) LRT irr; A3

USA OSHA OSHA PEL (TWA) (mg/m³) 15 mg/m³

Diuron (330-54-1)

USA ACGIH ACGIH TWA (mg/m³) 10 mg/m³

USA ACGIH Remark (ACGIH) URT irr

8.3 - Exposure controls

Personal protective equipment Avoid all unnecessary exposure.

Hand protection Wear nitrile gloves.

Eye protection Chemical goggles or safety glasses.

Respiratory protection Wear appropriate mask.

Other Information Do not eat, drink, or smoke during use.

SECTION 9.0 - PHYSICAL AND CHEMICAL PROPERTIES

Urethane Insulation Component

9.1 - Information and basic physical and chemical properties

Physical state Structure.

Appearance Solid.

Color Tan or other characteristic color.

Odor Slight.

Odor Threshold Not applicable.

pH Not applicable.

Relative evaporation rate (butyl acetate=1) Slower than Ether.

Melting point Not applicable.

Freezing point Not applicable.

Boiling point Not applicable.

Flash point Not applicable.

Auto-ignition temperature >700°F.

Decomposition temperature >300°F.

Flammability (solid, gas) Not applicable.

Vapor pressure Not applicable.

Relative vapor density at 20 °C Not applicable.

Specific gravity Not applicable.

Density 0.005-0.32g/ml

Solubility Insoluble.

Log Pow Not applicable.

Log Kow Not applicable.

Viscosity, kinematic Not applicable.

Viscosity, dynamic Not applicable.

Explosive properties Not applicable.

Oxidizing properties Not applicable.

Explosive limits Not applicable.

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SECTION 9.0 - PHYSICAL AND CHEMICAL PROPERTIES

Section continued from page 6

Urethane Insulation Component

9.2 - Other information

None.

Magnesium Oxide Sheathing Component

9.1 - Information and basic physical and chemical properties

Appearance	Solid sheet material.
Physical State	Solid.
Form	Board/Panel.
Color	White/Off-white.
Odor	None.
Odor Threshold	Non applicable.
pH	Non-Soluble.
Melting Point/Freezing Point	Not applicable.
Initial Boiling Point and Boiling Range	Not applicable.
Flash Point	Not applicable.
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/Lower Flammability or Explosive Limits	Not applicable.
Flammability Limit - Lower (%)	Not applicable.
Flammability Limit - Upper (%)	Not applicable.
Explosive Limit - Lower (%)	Not applicable.
Explosive Limit - Upper (%)	Not applicable.
Vapor Pressure	Not applicable.
Vapor Density	Not applicable.
Density	50-60 lb/ft
Solubility (Water)	Non-soluble.
Partition Coefficient (n-octanol/water)	Not applicable.
Auto-Ignition Temperature	Not applicable.
Decomposition Temperature	Unknown.
Viscosity	Not applicable.
Bulk Density	55-60 lb/ft
Particle Size	Varies.
VOC (Weight %)	0%

9.2 - Other information

None.

Vapor-Permeable Coating Component

9.1 - Information and basic physical and chemical properties

Physical state	Liquid.
Appearance	Liquid.
Color	Pink.
Odor	No data available on odor.
Odor Threshold	No data available.
pH	-8-9.5
Relative evaporation rate (butyl acetate=1)	No data available.
Melting point	No data available.
Freezing point	No data available.
Boiling point	No data available.
Flash point	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Flammability (solid, gas)	No data available.
Vapor pressure	No data available.
Relative vapor density at 20 °C	No data available.
Specific gravity	No data available.
Density	-1.47-1.54 g/cm ³
Solubility	water: miscible.
Log Pow	No data available.
Log Kow	No data available.
Viscosity, kinematic	No data available.
Viscosity, dynamic	No data available.

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SECTION 9.0 - PHYSICAL AND CHEMICAL PROPERTIES

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Vapor-Permeable Coating Component

9.1 - Information and basic physical and chemical properties

Explosive properties	No data available.
Oxidizing properties	No data available.
Explosive limits	No data available.

9.2 - Other information

VOC content	17.0 g/L
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SECTION 10.0 - STABILITY AND REACTIVITY

Urethane Insulation Component

10.1 - Reactivity

No additional information available.

10.2 - Chemical stability

Stable.

10.3 - Possibility of hazardous reactions

Not applicable.

10.4 - Conditions to avoid

Avoid temperatures above 800°F.

10.5 - Incompatible materials

Not applicable.

10.6 - Hazardous decomposition products

When foam burns it produces a large volume of dense smoke that presents a major hazard in that it can cause panic and disorientation and inhibit ability to escape.

Magnesium Oxide Sheathing Component

10.1 - Reactivity

No information available.

10.2 - Chemical Stability

Material is stable under normal conditions.

10.3 - Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 - Conditions to Avoid

No known conditions.

10.5 - Incompatible Materials

No known substances.

10.6 - Hazardous Decomposition Products

No known conditions.

Vapor-Permeable Coating Component

10.1 - Reactivity

No additional information available.

10.2 - Chemical stability

Not established.

10.3 - Possibility of hazardous reactions

Not established.

10.4 - Conditions to avoid

Extremely high or low temperatures.

10.5 - Incompatible materials

Strong acids. Strong bases.

10.6 - Hazardous decomposition products

Fume. Carbon Monoxide. Carbon Dioxide.

SECTION 11.0 - TOXICOLOGICAL INFORMATION

Urethane Insulation Component

11.1 - Information on toxicological effects

Acute toxicity May cause skin irritation or respiratory irritation.

Chronic toxicity No data available.

Likely routes of exposure Skin or inhalation of dust.

Symptoms related to physical, chemical and toxicological characteristics May cause skin irritation or respiratory irritation.

Delayed and immediate effects and chronic effects from short and long-term exposure Watering eyes, irritation; coughing or sneezing from dust.

Numerical toxicity measures No data available.

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SECTION 11.0 - TOXICOLOGICAL INFORMATION

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Magnesium Oxide Sheathing Component

11.1 - Information on Toxicological Effects

Acute Toxicity	Non-Hazardous.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics	Under normal conditions of intended use, this material does not pose a risk to health.
Information on Likely Routes of Exposure	
Ingestion	Not likely due to form of product.
Inhalation	Mechanical sawing may generate dust. Dust has an irritant action on mucous membranes of the upper respiratory tract and eyes.
Skin Contact	Under normal conditions of intended use, this material does not pose a skin hazard.
Eye Contact	Mechanical sawing may generate dust. Direct contact with eyes may cause temporary irritation. Under normal conditions of intended use, this material does not pose a risk to health.

Vapor-Permeable Coating Component

11.1 - Information on toxicological effects

Acute toxicity	Not classified.
<u>Titanium Dioxide (13463-67-7)</u>	
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value).
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value).
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value).
<u>1, 2-Benzisothiazol-3(2H)-One (2634-33-5)</u>	
LD50 oral rat	1020 mg/kg (Rat; Literature study).
ATE US (oral)	1020.00000000 mg/kg body weight.
<u>3-Iodo-2-Propynyl Butylcarbamate (55406-53-6)</u>	
LD50 oral rat	300-500, Rat; OECD 423: Acute Oral Toxicity - Acute Toxic Class Method; Experimental value.
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity).
LC50 inhalation rat (mg/l)	0.67 mg/l/4h (Rat; Experimental value).
ATE US (oral)	500.00000000 mg/kg body weight.
ATE US (gases)	700.00000000 ppmV/4h.
ATE US (vapors)	0.67000000 mg/l/4h.
ATE US (dust, mist)	0.67000000 mg/l/4h.
Skin corrosion/irritation	Not classified. pH: -8-9.5
Serious eye damage/irritation	Not classified. pH: -8-9.5
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	May cause cancer.
<u>Quartz (14808-60-7)</u>	
IARC group	1 - Carcinogenic to humans.
<u>Titanium Dioxide (13463-67-7)</u>	
IARC group	2B - Possibly carcinogenic to humans.
Reproductive Toxicity	Not classified.
Specific target organ toxicity (single exposure)	Not classified.
Specific target organ toxicity (repeated exposure)	Not classified.
Aspiration hazard	Not classified.
Potential adverse humans health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	May cause an allergic skin reaction. May cause cancer by inhalation.

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SECTION 12.0 – ECOLOGICAL INFORMATION

Urethane Insulation Component

12.1 - Toxicity

Not a marine pollutant.

12.2 - Persistence and degradability

No known significant effects.

12.3 - Bioaccumulative potential

Does not bioaccumulate.

12.4 - Mobility in soil

None.

12.5 - Other adverse effects

No additional information.

Magnesium Oxide Sheathing Component

12.1 - Toxicity

Components are not classified as environmentally hazardous.

12.2 - Persistence and Degradability

Not Applicable.

12.3 - Bioaccumulative Potential

Not Applicable.

12.4 - Mobility in Soil

Not Applicable.

12.5- Other Adverse Effects

No known effects.

Vapor-Permeable Coating Component

12.1 - Toxicity

Titanium Dioxide (13463-67-7)

LC50 Fish 1

> 1000 mg/l (96 h; Pimephales promelas).

EC50 Daphnia 1

< 1000 mg/l (432 h; Daphnia magna; Static system).

LC50 Fish 2

> 1 g/l (96 h; Leuciscus idus).

EC50 Daphnia 2

< 500 mg/l (720 h; Daphnia magna; Static system).

Threshold Limit Algae 1

61 mg/l (72 h; Pseudokirchneriella subcapitata).

3-Iodo-2-Propynyl Butylcarbamate (55406-53-6)

LC50 Fish 2

0.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system).

EC50 Daphnia 2

0.16 mg/l (EC50; EPA OPP 72-2; 48 h; Daphnia magna; Flow-through system).

Threshold Limit Algae 1

0.022 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus; Static System).

12.2 - Persistence and degradability

ArmorSeal VP

Persistence and degradability

Not established.

Quartz (14808-60-7)

Persistence and degradability

Biodegradability: not applicable. Not established.

Biochemical oxygen demand (BOD)

Not applicable.

Chemical oxygen demand (COD)

Not applicable.

ThOD

Not applicable.

BOD (% of ThOD)

Not applicable.

Titanium Dioxide (13463-67-7)

Persistence and degradability

Biodegradability: not applicable. Low potential for mobility in soil. Not established.

Biochemical oxygen demand (BOD)

Not applicable.

Chemical oxygen demand (COD)

Not applicable.

ThOD

Not applicable.

BOD (% of ThOD)

Not applicable.

1, 2-Benzisothiazol-3(2H)-One (2634-33-5)

Persistence and degradability

Biodegradable in water. No (test) data on mobility of the substance available. Not established.

3-Iodo-2-Propynyl Butylcarbamate (55406-53-6)

Persistence and degradability

Not readily biodegradable in water. Inherently biodegradable. Low potential for adsorption in soil. Not establish.

Chemical oxygen demand (COD)

1.15 g O₂/g substance.

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SECTION 12.0 - ECOLOGICAL INFORMATION

Section continued from page 10

Vapor-Permeable Coating Component

12.3 - Bioaccumulative potential

ArmorSeal VP

Bioaccumulative potential Not established.

Quartz (14808-60-7)

Log Pow Not applicable.

Bioaccumulative Potential No Bioaccumulation data available. Not established.

Titanium Dioxide (13463-67-7)

Bioaccumulative Potential Not bioaccumulative. Not established.

1, 2-Benzisothiazol-3(2H)-One (2634-33-5)

Log Pow 1.3 (Experimental value).

Bioaccumulative Potential Low potential for bioaccumulation (Log Kow < 4). Not established.

3-Iodo-2-Propynyl Butylcarbamate (55406-53-6)

BCF fish 1 3.3-4.5 (BCF).

Log Pow 2.81 (Literature; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25°C).

Bioaccumulative Potential Low potential for bioaccumulation (BCF < 500). Not established.

12.4 - Mobility in soil

3-Iodo-2-Propynyl Butylcarbamate (55406-53-6)

Surface Tension 0.0691 N/m (158 mg/l).

Log Koc Koc, PCKOCWIN v1.66; 198.1; Calculated value.

12.5 - Other adverse effects

Effect on Ozone Layer No additional information available.

Effect on the Global Warming No known ecological damage caused by this product.

Other Information Avoid release to the environment.

SECTION 13.0 - DISPOSAL CONSIDERATIONS

Urethane Insulation Component

13.1 - Waste treatment methods

Waste disposal recommendations Landfill as ordinary industrial waste in compliance with pertinent regulations.

Magnesium Oxide Sheathing Component

13.1 - Waste Treatment Methods

Disposal Instructions Dispose of in accordance with applicable federal, state, and local regulations. Recycle responsibly.

Local Disposal Regulations Dispose of in accordance with local regulations. Recycle responsibly.

Hazardous Waste Code Not applicable.

Waste from Residues/Unused Products Dispose of in accordance with local regulations. Recycle responsibly.

Contaminated Packing Dispose of in accordance with local regulations. Recycle responsibly.

Vapor-Permeable Coating Component

13.1 - Waste treatment methods

Waste Disposal Recommendations Dispose in a safe manner in accordance with local/national regulations. Dispose of container in accordance with local, regional, or national regulations.

Ecology - Waste Materials Avoid release to the environment.

SECTION 14.0 - TRANSPORT INFORMATION

Urethane Insulation Component

In accordance with DOT.

Not regulated for transport.

Magnesium Oxide Sheathing Component

DOT Not regulated as dangerous goods. Non-hazardous.

IATA Not regulated as dangerous goods. Non-hazardous.

IMDG Not regulated as dangerous goods. Non-hazardous.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code Not applicable. Product is solid, therefore bulk transport is governed by IMSBC Code.

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SECTION 14.0 - TRANSPORT INFORMATION

Section continued on page 12

Vapor-Permeable Coating Component

In accordance with DOT.

Not regulated for transport.

Additional information

Other information No supplementary information available.

ADR

Transport document description.

Transport by sea

No additional information available.

Air transport

No additional information available.

SECTION 15.0 - REGULATORY INFORMATION

Urethane Insulation Component

15.1 - US Federal regulations

No Additional Information available.

15.2 - International regulations

CANADA

No additional information available.

EU-Regulations

No additional information available.

15.3 - US State regulations

No Additional Information available.

Magnesium Oxide Sheathing Component

DOT Not regulated as dangerous goods. Non-hazardous.

IATA Not regulated as dangerous goods. Non-hazardous.

IMDG Not regulated as dangerous goods. Non-hazardous.

Transport in Bulk According to Annex II of

MARPOL 73/78 and the IBC Code Not applicable. Product is solid, therefore bulk transport is governed by IMSBC Code.

Vapor-Permeable Coating Component

15.1 - US Federal regulations

Registration status

Chemical TSCA, US released / listed.

EPCRA 311/312 (Hazard categories)

Refer to SDS section 2 for GHS hazard classes applicable for this product.

15.2 - International regulations

CANADA

No additional information available.

EU-Regulations

No additional information available.

Classification according to Regulation (EC) No. 1272/2008 [CLP].

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified.

15.3 - US State regulations

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:



WARNING: This product can expose you to 4-Vinylcyclohexane which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

State RTK	CAS Number	Chemical Name
NJ	1317-65-3	Limestone
	13463-67-7	Titanium Dioxide
	14808-60-7	Quartz
	64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic
PA	1317-65-3	Limestone
	13463-67-7	Titanium Dioxide
	68855-54-9	Kieselguhr, soda ash flux-calcined
	14808-60-7	Quartz

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Safety Data Sheet (SDS)

SECTION 16.0 - OTHER INFORMATION

Revision date 261118
Other information None.

This SDS contains all the information required by ANSI Z400.1 standard (United States), by regulation 29 CFR Part 1910-1200 of the Hazard Communication Standard of OSHA and is in accordance with DORS/88-66 of WHMIS (Canada).

The best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Shipping Address | 1225 Chuck Taylor Lane, Salisbury, North Carolina 28147
Mailing Address | P.O. Box 2128 Salisbury, North Carolina 28145
Website Address | www.maxlifeindustries.com
Office Telephone | 704-636-2411
Plant Telephone | 704-636-0292
Customer Service Email | cs@maxlifeindustries.com