

ArmorWall NC Structural Insulated Sheathing™

Safety Data Sheet (SDS)

SECTION 1.0 - IDENTIFICATION

1.1 - Product Identifier

Product Form Fused multi-component panel.
Product Identifier ArmorWall NC.

1.2- Product Use

Structural Integrated Sheathing 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 whilst 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.

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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

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.

SECTION 5.0 - FIRE-FIGHTING MEASURES

Urethane Insulation Component

5.1 - Extinguishing media

Suitable extinguishing media Water, dry chemicals, CO₂

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.

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.

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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.

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.

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.

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SECTION 8.0 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Section continued from page 3

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

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.

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.

9.2 - Other information

None.

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SECTION 9.0 - PHYSICAL/CHEMICAL CHARACTERISTICS

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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.

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.

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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.

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.

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.	

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.

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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.

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.

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.



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