

VolcaLite[®] Light-Weight Reinforced Thermoplastic

SECTION 1

Trade Name and Synonyms:

VolcaLite Light-Weight Reinforced Thermoplastic (LWRT) sheet

Chemical Name and Synonyms:

Chopped filament basalt-fiber reinforced Polypropylene based composites. This MSDS is for all types, grades and colors of polypropylene based VolcaLite composites manufactured by AZDEL, Inc.

Manufacturer's Name:

AZDEL, Inc.

Plant Address:

2000 Enterprise Drive, Forest, VA 24551, USA

Emergency Telephone No.:

(434) 386-6524

SECTION 2 - Ingredients

Ingredients:

Polypropylene:

%

25-75

TLV (R) (UNITS)

None Established

PEL

None Established
5 mg/m³ respiratory
nuisance dust

Fibrous Basalt:

25-75

10 mg/m³

A continuous and/or chopped filament basalt fiber with composition consisting principally of oxides of silicon, aluminum, iron, calcium, magnesium, sodium, titanium, and potassium fused in an amorphous vitreous state.

Trade Secret:

0-10

None Established

None Established

Ingredient available upon request under conditions of 29CFR1910.1200

Anti-oxidants, Pigments, and Processing Aids:

<5

3.5 mg/m³

3.5 mg/m³

SECTION 3 - Physical Data

Melting Point:

327°F

Specific Gravity (H₂O = 1.0):

<1.0

Boiling Point:

Not Applicable

Volatiles:

<1.0%

Vapor Pressure (mm Hg):

Not Applicable

Evaporation Rate:

Not Applicable

Vapor Density (Air=1):

Not Applicable

Solubility in Water:

Insoluble

Appearance, Odor and Fiber Diameter:

The odor of AZDEL resin processing fumes, if any, is mild and may vary somewhat with specific resin formulations. In general, the odor is not offensive to most individuals. As produced, there are no fibers with diameters smaller than 6 microns in any AZDEL product.

SECTION 4 - Fire and Explosion Data

Flash Point:

Ignition Temperature: 625°F

Flammable Limits:

Not Applicable

Extinguishing Media:

Dry Chemical, CO₂, H₂O

Special Fire Fighting Procedures:

In a sustained fire, self-contained breathing apparatus (SCBA) should be worn.

Unusual Fire and Explosion Hazards:

Severe overheating of AZDEL composites can result in auto-ignition.

In as much as AZDEL, Inc. has no control over the use to which others may put this material, it does not guarantee that the same results as those described herein will be obtained. Nor does AZDEL, Inc. guarantee the effectiveness of safety of any possible or suggested design for articles of manufacture as illustrated. Each user of the material or design or both should make his/her own tests to determine the suitability of the material or any material for the design, as well as the suitability of the material or design or both for his/her own particular use. Statements concerning possible or suggested use of the materials or design are not to be construed as constituting a license under an AZDEL, Inc. patent covering such use or as recommendations for use of such materials or designs in the infringement of any patent.

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SECTION 5 - Health Hazard Data

Primary Route(s) of Entry:	Inhalation
Signs and Symptoms of Exposure:	Rash, itching, conjunctivitis, coughing, sneezing
Health Hazards	<p>(Acute): Exposure to basalt fibers sometimes causes irritation of the skin and, less frequently, irritation of the eyes, nose, or throat.</p> <p>(Chronic): Due to the manufacturing process used, basalt-fiber based products have diameters significantly greater than 3.5 microns, meaning that they are non-respirable according to the thresholds defined by the World Health Organization and the National Institute for Occupational Safety and Health. Upon breakage, the fibers may fracture transversely into shorter lengths, but not longitudinally into smaller diameters. The fibers could become respirable, however, upon sanding or machine processing, where respirable dust may be generated. None of the base resins in the physical form present in AZDEL composites are hazardous substances within the meaning of the OSHA Hazard Communication Standard.</p>
Carcinogenicity Status:	No known carcinogenic risk is associated with basalt fibers
Molten Resins:	If molten material comes in contact with the skin, cool under a running stream of water. <u>Do not attempt to remove the resin from the skin.</u> Removal could result in severe tissue damage. Seek medical attention.
Medical Conditions Aggravated by Exposure:	None Known.
Emergency and First Aid Procedures:	<p>Eye contact: Flush eyes with clear water for at least 15 minutes – seek medical attention.</p> <p>Skin contact: Rinse contacted area with room temperature to cool water and then wash gently with mild soap. If fiber becomes embedded, seek medical attention.</p>

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SECTION 6 - Reactivity Data

Stability:	Stable
Conditions to Avoid:	None Known
Incompatibility, Material to Avoid:	Avoid contact with hot or concentrated nitric and perchloric acids, fuming sulfuric acid, or 98% sulfuric acid at 140°F.
Hazardous Decomposition Products:	In a sustained fire, resin may decompose releasing hazardous products of combustion. Molding at temperatures above those prescribed releases hazardous decomposition products.
Hazardous Polymerization:	Will Not Occur
Conditions to Avoid:	None Known.

SECTION 7 - Spill or Leak Procedure

Steps to be taken in case material is released or spilled:	No Special Precautions
Waste Disposal Method:	Dispose of as solid in accordance with local, state, and federal regulations. Not considered a hazardous waste under federal "RCRA".

SECTION 8 - Special Protection Information

Respiratory Protection:	None normally required. If airborne fiber concentrations exceed permissible exposure levels, respiratory protection for nuisance dusts in accordance with OSHA 1910.134 should be provided.
Ventilation:	Use local ventilation if necessary to maintain airborne dust levels to below established limits.
Local Exhaust:	Recommended during heating and molding.
Protective Gloves:	May reduce skin irritation or burns during processing.
Eye Protection:	Safety glasses with side shields.
Other Protective Equipment:	Clothing to prevent contact with hot product is necessary. Contact with molten resin may cause burns.

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SECTION 9 - Special Precautions

Precautions for safe processing:

- When heated to processing temperatures virtually all thermoplastics emit processing fumes. The exact composition and concentration of processing fumes depend on the resin formulation including additives, the residence time in the process equipment, equipment variables such as oven design, venting parameters etc., and the process temperature.
- When this resin is processed according to AZDEL, Inc.'s recommended guidelines (available on request) and taking normal precautions detailed below, there are no known adverse effects to human health.
- Certain sensitive individuals and those with respiratory impairments, however, may experience some temporary irritation by exposure to specific components in the processing fumes. Bring the person into fresh air. Treat eye irritation by flushing with clean, low-pressure water. Treat skin irritation by washing with soap and water. Seek medical attention if irritation persists.

Normal Precautions:

- Good industrial practice requires adequate general ventilation of the workplace.
- Use of a local exhaust system will remove safely all fumes and dust during processing and secondary operations.
- Gloves should be worn when handling hot material.
- Cleaning of fumes, condensates (which may include toxic contaminants), residues and dust from processing and ventilation equipment should also be undertaken in well-ventilated conditions and wearing protective clothing including rubber gloves.
- During the molding operation, it becomes necessary from time to time to not mold heated blanks. This may be as a result of checking oven preheat conditions, or any stoppage in the production process. It is recommended to keep a bucket of water near the preheat oven to cool these blanks once they exit the oven. **DO NOT** stack and allow these blanks to cool in air. Stacking of heated blanks retains heat that may allow for spontaneous ignition to occur. Any material heated and not molded should be cooled immediately by emersion in water or by putting the individual blanks in contact with a cool surface, (i.e. floor). This will stop the heating process and allow for safe disposal of this material by conventional waste procedures used for thermoplastic resin materials.

Handling and Storing:

- None Known.

Other Precautions:

- Grinding, sanding, or other forms of mechanical alteration of this product may result in exposure to dusts.

AZDEL, Inc.
Headquarters
300 Enterprise Drive, Suite A
Forest, VA 24551, USA
Tel: (434) 455-2780
Fax: (434) 455-2785
URL: www.azdel.com

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