Aerocel® AC Tube

EPDM Pipe Insulation

AEROFLEX®

Aerocel® AC Tube

Unslit EPDM Pipe Insulation

Refrigeration | HVAC | VRF
Hot and Cold Water Piping

Closed-cell elastomeric foam, pipe insulation easily slides over piping for new installations or can be slit to snap over piping in existing installations. Proprietary blend of non-polar EPDM-rubber is key to consistent, long-lasting thermal performance and protection against moisture and environmental stresses.

Wide range of sizes and thicknesses to meet energy code and condensation control requirements. (See back cover.)

Fast, simple to install

- Easily slides over new installation piping
- Can be slit and snapped around piping already installed
- Built-in vapor retarder – No protective finish or vapor barrier required*

Superior environmental stability

- Non-polar – does not induce or react with water
- Stands up to UV and high humidity
- Non-corrosive on stainless steel and copper piping
- Suitable for indoor and outdoor applications*

Safe for indoor environments

- Superior fire safety – 25/50 rated (ASTM E84) and self-extinguishing (ASTM D635) thru 2-inch thick
- GREENGUARD Gold Certified for low chemical emissions (VOCs)
- No CFCs, HFCs, HCFCs, PBDEs, formaldehyde, nitrosamine or fibers
- Naturally mold-resistant: no biocides required

All-inclusive insulation solutions:

Aerofix®
Light-weight, rigid pipe supports, pre-insulated with closed-cell EPDM foam rubber and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape® closure system.

AeroFit™
Pre-fabricated fitting insulators made of closed-cell EPDM rubber for fast installation on hot/cold-water and refrigerant piping.

Protape®
EPDM-based, self-adhering rubber tape for sealing butt joints and termination points.

Aeroflex Adhesives
Specially formulated contact adhesives for Aerocel EPDM insulations.

*Vapor barrier may be required in extreme low-temperature or extreme high-humidity applications. Protective jacket required for direct-bury applications and if insulation may be subjected to mechanical damage.

Product: Closed-cell EPDM (Ethylene Propylene Diene Monomer)-based rubber elastomeric foam pipe insulation for HVAC piping (including VRF/VRV variable refrigerant systems), plumbing and refrigeration piping.

Standard Specification: ASTM C534 Type I Grade 1

Thermal Conductivity (K) Btu-in/hr-Ft² -°F (W/m.K)

Mean Temperature	K Value	Test Method
75°F (24°C)	0.245 (0.0353)	ASTM C518 /C177
90°F (32°C)	0.250 (0.0360)	

Physical and Operational Properties

Property	Test Value/Rating	Test Method
Service Temperature, CONTINUOUS	-297°F to +257°F -183°C to +125°C	ASTM C411[1]
U.V. Resistance	Minimal Cracking or color change	ASTM G7
Ozone Resistance	No cracking	ASTM D1171
Water Vapor Permeability, Max	0.03 perm-inch (4.38 x 10^{-11} g/Pa.s.m)	ASTM E96
Water Absorption (% by Volume), Max	0.2%	ASTM C209
Fire Safety Characteristics thru 2" thickness	Class V-O	UL 94
	25/50	ASTM E84
	Pass	NFPA 90A/90B
	Self-extinguishing	ASTM D635
Corrosion of Stainless Steel	Non-corrosive	ASTM C692, DIN 1988
Fungi Resistance	No Growth	ASTM C1318/G21
Mold Resistance	No Growth	UL181 Section 13
Flexibility	Pass	ASTM C534
Air Erosion	Pass	UL181 Section 18

Additional Approvals, Compliances, Etc.

ASTM D1056, 2C1	Standard Specification for Flexible Cellular Materials—Sponge or Expanded Rubber (2C1- Closed Cell Rubber, Oil resistant with medium mass change, Compression Deflection of 2 - 5 psi.)
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1	International Green Construction Code® (igCC®)
ANSI/ASHRAE/IES Standard 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
IECC®	International Energy Conservation Code®
CA Title 24	California Building Energy Efficiency Standards
MEA #171-04-M	City of New York Material and Acceptance Pipe Insulation
CDPH Specification 01350	California Department of Public Health (VOC Emissions)
LEED®	U.S. Green Building Council - Leadership in Energy and Environmental Design
REACH	European Chemicals Agency (ECHA) - Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	European Union - Restriction of Hazardous Substances
MIL-P-15280 (Form S, Form T)	U.S. Department of Defense – Qualified Products List (06/24/2005)

Potential LEED® Credit Contributions

Energy & Atmosphere (EA)	Prerequisite: Minimum Energy Performance Credit: Optimize Energy Performance
Indoor Environmental Quality (EQ)	Credit: Low-Emitting Materials Credit: Indoor Air Quality Assessment Credit: Thermal Comfort Credit: Acoustic Performance
Innovation (IN)	Credit: Occupant Comfort Survey

[1] AEROCEL flexibility begins to decrease at -70°F and below. This does not impact the insulating properties of the material.

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AEROFLEX®

Aerocel® AC Pipe Insulation R-Values									
Pipe Size (in)	IPS (in)	Wall Thickness							
		1/4 in	**3/8 in**	**1/2 in**	**3/4 in**	**1 in**	**1-1/2 in**	**2 in**	**3 in**
1/4		1.7	3.0	4.0	6.7	10.0	17.5		
3/8		1.6	2.7	3.6	6.0	9.0	15.8	24.0	
1/2	1/4	1.5	2.5	3.4	5.5	8.3	14.4	21.9	
5/8	3/8	1.4	2.4	3.2	5.2	8.0	13.5	20.6	32.6
3/4		1.4	2.3	3.1	5.0	7.7	13.0	19.7	31.2
7/8	1/2	1.3	2.3	3.2	5.3	7.4	12.9	18.5	30.6
1 1/8	3/4	1.3	2.1	3.0	5.0	6.9	12.1	17.3	28.5
1 3/8	1	1.3	2.1	3.1	5.0	6.5	11.3	16.2	26.7
1 5/8	1-1/4		2.3	3.0	4.8	6.3	11.1	15.9	26.0
1 7/8	1-1/2		2.2	2.9	4.7	6.0	10.6	15.2	24.7
2 1/8			2.2	3.0	4.6	5.9	10.3	14.8	24.0
2 3/8	2		2.2	3.0	4.5	5.8	10.0	14.3	23.2
2 5/8			2.2	2.9	4.4	5.7	9.8	14.0	22.6
2 7/8	2-1/2		2.1	2.9	4.3	5.5	9.5	13.6	21.9
3 1/8			2.1	2.9	4.3	5.5	9.4	13.4	21.6
3 1/2	3		2.1	3.0	4.2	5.3	9.1	12.9	20.8
3 5/8			2.1	3.0	4.2	5.3	9.1	12.9	
4 1/8			2.1	2.9	4.1	5.2	8.9	12.5	20.0
4 1/2	4		2.0	2.9	4.0	5.1	8.7	12.2	19.6
5 1/8					4.0	5.1	8.5	11.9	19.0
5 1/2	5			2.8	3.9	5.0	8.4	11.7	18.6
6 1/8				2.8	3.9	4.9	8.2	11.5	
6 5/8	6			2.8	3.9	4.9	8.1	11.3	17.8

282 Industrial Park Road Sweetwater, TN 37874
423.337.2493 Fax: 423.337.7675 Toll Free: 866.AEROCEL
www.aeroflexusa.com

Aerocel® AC

Sheet & Roll Insulation

AEROFLEX®

Aerocel® AC

Sheet & Roll Insulation

HVAC | Refrigeration | Chilled Water
Duct Wrap | Hot and Cold Water Piping

Closed-cell elastomeric foam insulation in smooth, durable sheets and rolls. Ideal for large pipes, chillers, tanks, duct wraps and more. Reduces both structure-borne sound and air-borne sound. Most thicknesses available with or without pressure-sensitive adhesive backing.

Proprietary blend of non-polar EPDM-rubber is key to consistent, long-lasting thermal performance and protection against moisture and environmental stresses.

Wide range of sizes and thicknesses to meet energy code and condensation control requirements. (See back cover.)

Fast, simple to install

Available with pressure sensitive adhesive (PSA) backing

Built-in vapor retarder – No protective finish or vapor barrier required*

Superior environmental stability

Non-polar – does not induce or react with water

Stands up to UV and high humidity

Non-corrosive on stainless steel and copper piping

Suitable for indoor and outdoor applications*

Attenuates lower frequency mechanical noise

Safe and quiet

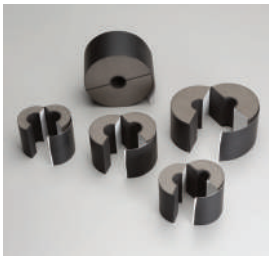
Superior fire safety – 25/50 rated (ASTM E84), NFPA 90A/90B and self-extinguishing (ASTM D635) thru 2-inch thick

GREENGUARD Gold Certified for low chemical emissions (VOCs)

No CFCs, HFCs, HCFCs, PBDEs, formaldehyde, nitrosamine or fibers

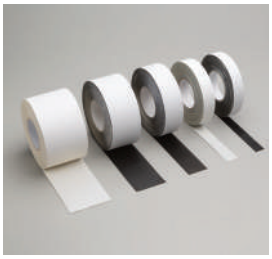
Naturally mold-resistant with a smooth, cleanable surface

All-inclusive insulation solutions:



Aerofix®
Light-weight, rigid pipe supports, pre-insulated with closed-cell EPDM foam rubber and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape® closure system.

AeroFit™
Pre-fabricated fitting insulators made of closed-cell EPDM rubber for fast installation on hot/cold-water and refrigerant piping.



Protape®
EPDM-based, self-adhering rubber tape for sealing butt joints and termination points.

Aeroflex Adhesives
Specially formulated contact adhesives for Aerocel EPDM insulations.

*Vapor barrier may be required in extreme low-temperature or extreme high-humidity applications. Protective jacket required for direct-bury applications and if insulation may be subjected to mechanical damage

Product: Closed-cell EPDM (Ethylene Propylene Diene Monomer)-based rubber elastomeric foam insulation for HVAC, refrigeration and plumbing piping and equipment.

Standard Specification: ASTM C534 Type II Grade 1

Thermal Conductivity (K) Btu-in/hr-Ft² -°F (W/m.K)

Mean Temperature	K Value	Test Method
75°F (24°C)	0.245 (0.0353)	ASTM C518 /C177
90°F (32°C)	0.250 (0.0360)	

Physical and Operational Properties

Property	Test Value/Rating	Test Method
Service Temperature, CONTINUOUS	-297°F/-183°C to +257°F/+125°C -22°F/-30°C to +248°F/+120°C with PSA	ASTM C411[1]
U.V. Resistance	Minimal Cracking or color change	ASTM G7
Ozone Resistance	No cracking	ASTM D1171
Water Vapor Permeability, Max	0.03 perm-inch (4.38 x 10^{-11} g/Pa.s.m)	ASTM E96
Water Absorption (% by Volume), Max	0.2%	ASTM C209
Fire Safety Characteristics thru 2" thickness	Class V-O	UL 94
	25/50	ASTM E84
	Pass	NFPA 90A/90B
	Self-extinguishing	ASTM D635
Corrosion of Stainless Steel	Non-corrosive	ASTM C692, DIN 1988
Fungi Resistance	No Growth	ASTM C1318/G21
Mold Resistance	No Growth	UL181 Section 13
Flexibility	Pass	ASTM C534
Air Erosion	Pass	UL181 Section 18

Additional Approvals, Compliances, Etc.

ASTM D1056, 2C1	Standard Specification for Flexible Cellular Materials—Sponge or Expanded Rubber (2C1- Closed Cell Rubber, Oil resistant with medium mass change, Compression Deflection of 2 - 5 psi.)
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1	International Green Construction Code® (igCC®)
ANSI/ASHRAE/IES Standard 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
IECC®	International Energy Conservation Code®
CA Title 24	California Building Energy Efficiency Standards
MEA #171-04-M	City of New York Material and Acceptance Pipe Insulation
CDPH Specification 01350	California Department of Public Health (VOC Emissions)
LEED®	U.S. Green Building Council - Leadership in Energy and Environmental Design
REACH	European Chemicals Agency (ECHA) - Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	European Union - Restriction of Hazardous Substances
MIL-P-15280 (Form S, Form T)	U.S. Department of Defense – Qualified Products List (06/24/2005)

Potential LEED® Credit Contributions

Energy & Atmosphere (EA)	Prerequisite: Minimum Energy Performance Credit: Optimize Energy Performance
Indoor Environmental Quality (EQ)	Credit: Low-Emitting Materials Credit: Indoor Air Quality Assessment Credit: Thermal Comfort Credit: Acoustic Performance
Innovation (IN)	Credit: Occupant Comfort Survey

[1] AEROCEL flexibility begins to decrease at -70°F and below. This does not impact the insulating properties of the material.

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AEROFLEX®

Aerocel®AC Sheet Insulation R-Values												
Wall Thickness (in inches)	**1/8**	**1/4**	**3/8**	**1/2**	**5/8**	**3/4**	**1**	**1-1/4**	**1-1/2**	**2**	**2-1/2**	**3**
R-value	0.5	1.0	1.6	2.1	2.6	3.1	4.1	5.2	6.1	8.0	10.0	12.0

Aerocel®AC Roll Insulation R-Values												
Wall Thickness (in inches)	**1/8**	**1/4**	**3/8**	**1/2**	**5/8**	**3/4**	**1**	**1-1/4**	**1-1/2**	**2**	**2-1/2**	**3**
R-value	0.5	1.0	1.6	2.1	2.6	3.1	4.1	5.2	6.1	8.0	10.0	-

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www.aeroflexusa.com

SAFETY DATA SHEET

Date of Issue:
01/01/2020

AEROCEL®

Continuous Tube, Non-Continuous Tube,
Flat Sheet, Sheet Roll

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of Product:	Closed Cell Elastomeric Thermal Insulation
Trade Name:	Aerocel®
Manufacturer/Supplier:	Aeroflex USA, Inc.
	282 Industrial Park Road, Sweetwater, TN 37874
Telephone Number:	Toll Free 866-AEROCEL (237-6235)
Emergency Phone Number:	ChemTel, Inc.
	1-800-255-3924 (North America)
	+1-813-248-0585 (International)

2. HAZARD IDENTIFICATION

Inhalation

No significant signs of any adverse health hazard are expected to occur as a result of inhalation exposure

Eye Contact

No significant signs of any adverse health hazards are expected to occur as a result of eye contact

Ingestion

Practically non-toxic

Skin Contact

No Significant signs of any adverse health hazards are expected to occur as a result of skin contact

3. COMPOSITION/INFORMATION ON INGREDIENTS

Health Hazardous Components

Elastomeric thermal insulation is an expanded, closed cell, cross-linked rubber compound. They contain synthetic polymers, fillers, plasticizers and rubber chemicals. Since all of these material are bound in a polymer matrix, the product does not qualify as a hazardous material as defined by OSHA (29 CFR 1910.1200).

Following are the main ingredients in this product:

Synthetic rubber (EPDM: Ethylene-Propylene-Terpolymer Rubber) CAS No. 25038-36-2
Aluminum Trihydrate CAS No. 21645-51-2
Carbon Black CAS No. 1333-86-4

4. FIRST AID MEASURES

Inhalation	Not required under normal use. If irritation persists, remove from exposure area
Eye Contact	No required under normal use. Flush with water until all traces of the material are done. Seek medical attention if irritation persists
Ingestion	If illness or adverse symptoms develop, obtain medical attention
Skin Contact	Not required under normal use

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Carbon Dioxide, ABC dry chemical, Water spray and foam

Specific Hazards with regard to Fire-Fighting measures

Approach from upwind side. Avoid breathing smoke, fumes or vapors on downwind side.

Firefighters wear protective clothing, especially eye protection, and self contained breathing apparatus

Hazardous Combustion Products

Material is stable under normal conditions. In the event of a prolonged fire, may generate Carbon Monoxide, Carbon Dioxide, Low molecular weight alcohol/aldehydes and acid.

6. ACCIDENTAL RELEASE MEASURES

If materials released/Spill

Land Spill	Collect spilled material and place it in an appropriate container for reuse or disposal
Water Spill	Product is insoluble. Collect spilled material and place in an appropriate container for reuse or disposal
Neutralizing Agent	Negligible

7. HANDLING AND STORAGE

Handling Condition	No special precaution required
Storage Condition	Keep in dry normal storage

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls	General ventilation
Personal Protection	Negligible

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Expanded Foam Rubber
Specific Gravity (H_2O=1)	0.04-0.06
Service Temperature	-297°F to 257°F (-182°C to +125°C)
Thermal Conductivity	0.245 BTU.in/ft^2.hr.°F at Mean temp 75°F
Water Absorption	0.2% by volume Max
Water Vapor Permeability	0.03 Perm-inch (4.35 x 10^{-11} g/Pa.m.s)
Weather and UV resistance	Minimal Cracking
Flammability	Self-extinguishing

10. STABILITY AND REACTIVITY

Stability and Reaction	Stable
Conditions to avoid	Negligible
Hazardous Decomposition Product	May generate Carbon Monoxide, Carbon Dioxide, Low molecular weight alcohol/aldehydes and acid
Hazardous Polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

No Data

12. ECOLOGICAL INFORMATION

No Data

13. DISPOSAL CONSIDERATION

Waste material may be disposed of in an approved landfill or may be incinerated under conditions which meet federal, state, and local environmental regulation.

14. TRANSPORT INFORMATION

No Data

15. REGULATORY INFORMATION

No Data

16. OTHER INFORMATION

The information supplied herein is related to material specified and may not be valid if used in combination with other material or process. Further the information contained here is believed to be reliable and based on correct state of our knowledge. However no guarantees of any kind can be give as to its accuracy.

Aerotape™

EPDM Foam Tape for Aerocel® Closed-Cell Elastomeric Insulations

HVAC | Refrigeration | Hot & Cold-Water Piping

Flexible, self-adhering foam tape for wrapping hot and cold pipes, tubes and fittings.

Available in 1/8" thick x 2" wide x 30' long rolls (black).

Superior performance

- Adheres firmly to metal substrates and Aerocel insulation
- Low-perm: controls condensation and reduces probability of corrosion under insulation (CUI)
- Minimizes heat gain/loss
- Wide service temperature range: -70°F (-57°C) to +200°F (+ 93°C)
- Naturally UV-resistant

Safe for indoor environments

- No CFC's, HFC's, HCFC's, PBDE's, Nitrosamine or fibers
- Naturally mold-resistant; no added biocides required

Product: EPDM-based (Ethylene Propylene Diene Monomer) self-adhering foam tape for insulating HVAC, refrigeration and hot/cold water piping systems.

All-inclusive insulation solutions:

Aerofix®
Light-weight, rigid pipe supports, pre-insulated with closed-cell EPDM foam rubber and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape® closure system.

Aeroflex Adhesives
Specially formulated adhesive for bonding of Aerocel insulations. Fast tack and LVOC formulations available.

Aerocoat™
Low-VOC decorative and UV-protective coating for all Aerocel insulations.

AEROFLEX®

Physical and Operational Properties

Property	Test Value/Rating	Test Method
Thermal Conductivity @ 75°F mean temperature	.26 Btu.in/hr.ft^2.°F	ASTM C518
Service Temperature, CONTINUOUS	-70°F to +200°F -57°C to +93°C	ASTM C411[1]
UV Resistance	Pass	ASTM G7
Ozone Resistance	Pass	ASTM D1171
Water Absorption (% by weight), Max	5%	ASTM D1056
Water Vapor Permeability, Max	0.10 perm-inch	ASTM E96
Density (lbs/ft^3)	4-6	ASTM D1667
Fire Safety Characteristics	Self-extinguishing	ASTM D635
Adhesion peel strength, Min (at 180° angle)	1.15 lbs/in	ASTM D3330-04
Tensile Strength, Min	29 psi	ASTM D412-15a
Elongation, Min	136%	ASTM D412-15a

Additional Approvals, Compliances, Etc.

ANSI/ASHRAE/IES Standard 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
IECC®	International Energy Conservation Code®
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1	International Green Construction Code® (igCC®)
CA Title 24	California Building Energy Efficiency Standards
MEA #171-04-M	City of New York Material and Acceptance Pipe Insulation

Potential LEED® Credit Contributions

Energy & Atmosphere (EA)	Prerequisite: Minimum Energy Performance Credit: Optimize Energy Performance
Indoor Environmental Quality (EQ)	Credit: Low-Emitting Materials Credit: Indoor Air Quality Assessment Credit: Thermal Comfort Credit: Acoustic Performance
Innovation (IN)	Credit: Occupant Comfort Survey

[1] AEROCEL flexibility begins to decrease at -70°F and below. This does not impact the insulating properties of the material.

Find us in MasterSpec® BSD SpecLink

a product of The American Institute of Architects

282 Industrial Park Road Sweetwater, TN 37874
423.337.2493 Fax: 423.337.7675 Toll Free: 866.AEROCEL
www.aeroflexusa.com

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of Product:	Elastomeric Thermal Insulation Foam Tape
Trade Name:	AEROTAPE™
Manufacturer/Supplier:	Aeroflex USA Inc. 282 Industrial Park Rd Sweetwater, TN 37874
Telephone Number:	Toll Free 866-AEROCEL (237-6235)
Emergency Telephone Number:	ChemTel, Inc. 1-800-255-3924 (North America) +1-813-248-0585 (International)

2. Hazards Identification

[GHS Classification]

Physical Hazard	: None.
GHS Classification	: Not a hazardous substance or mixture.
GHS label elements	: Not a hazardous substance or mixture.
Other hazards	: None.
Signal word	: No Hazard Statement.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description : This product is an expanded, closed cell, cross-linked rubber compound. It contains synthetic polymers, fillers, plasticizers and rubber chemicals. Since all of these material are bound in a polymer matrix, this product does not qualify as a hazardous material as defined by OSHA (29 CFR 1910.1200). Pressure sensitive coating is a synthetic rubber based adhesive with a paper release liner and is classified as an article which is no hazardous as defined by OSHA (29 CFR 1910.1200) Following are the main ingredients in this product::

Ethylene-Propylene-Terpolymer

Formal Name	: EPT/EPDM
Chemical Family	: Synthetic Rubber
Chemical Formula	: -(C2H4)X-(C3H7)Y-(Diene)Z-
CAS No.	: 25038-36-2

Aluminium Trihydrate

Chemical Name	: Aluminium Trihydrate/Aluminium Hydroxide
Formal Name	: Aluminium Oxide Trihydrate
Chemical Formula	: $Al(OH)_3$
CAS No.	: 21645-51-2

Carbon Black

Chemical Name	: Carbon Black
Formal Name	: Furnace Black
Chemical Family	: High-Purity Colloidal Carbon
Chemical Formula	: C
CAS No.	: 1333-86-4

Adhesive

Chemical Name	: Acrylic Polymer
Formal Name	: Acrylic Pressure Sensitive Adhesive
Chemical Family	: Copolymers of acrylic acid, methacrylic acid, ester of these acid
Chemical Formula	: $(C_5H_8O_2)_n$
CAS No.	: 90011-14-7

4. FIRST AID MEASURES

Inhalation

Not required under normal use, any dust created when the material is cut would not be airborne. If irritation persists, remove from exposure area.

Eye contact

Not required under normal use. Flash with water until all traces of this material are gone. Seek medical attention if irritation persists.

Ingestion

If illness or adverse symptoms develop, obtain medical attention.

Skin Contact

Not required under normal use.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Carbon dioxide, ABC dry chemical, water spray and foam.

Specific Hazards with regard to Fire-Fighting measures

Approach from upwind side. Avoid breathing smoke, fumes or vapors on downwind side. Firefighters wear protective clothing, especially eye protection, and self-contained breathing apparatus.

Hazardous Combustion Products

Material is stable under normal conditions. In the event of a prolonged fire, may generate Carbon Monoxide, Carbon Dioxide, Low molecular weight alcohol/aldehydes and acid.

6. ACCIDENTAL RELEASE MEASURES

In Event of Released /Spill

Land Spill	: Collect spilled material and place it in an appropriate container for reuse or disposal.
Water Spill	: Product is insoluble. Collect spilled material and place it an appropriate container for reuse or disposal.
Neutralizing Agent	: N/A

7. HANDING AND STORAGE

Handling condition	: No special precaution required.
Storage condition	: Keep in a dry normal storage.
Storage Temperature	: Ambient temperature.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls	: General ventilation.
Personal Protection	: Negligible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Expanded rubber foam with acrylic pressure sensitive adhesive
Specific Gravity (H_2O=1)	: 0.04-0.08
Service Temperature (^oC)	: -29 to +93°C (-20 to +200°F)
Thermal Conductivity (Btu.in/h.ft^2.^{o}F)	: 0.038 at mean temp 24°C max
Water Vapor Permeability	: 0.1 Perm-inch max
Water Absorption (%by weight)	: 5 % by weight max
Flammability	: Self-extinguishing

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal temperatures and pressure.
Condition to Avoid	: None known.
Decomposition Product	: May generate Carbon Monoxide, Carbon Dioxide, Low molecular weight alcohol/ aldehydes and acid
Hazardous Polymerization	: Will not occur.

11. TOXICOLOGICAL INFORMATION

No Hazardous Substance.

12. ECOLOGICAL INFORMATION

Classified as non-hazardous to waters.

13. DISPOSAL CONSIDERATION

Disposal	: Waste material may be disposed of in an approved landfill or may be incinerated under conditions which meet federal, State and Local environmental regulation.

14. TRANSPORTATION INFORMATION

International Regulations

IATA-DGR : Not regulated as a dangerous goods

IMDG-Code : Not regulated as a dangerous goods

Domestic regulation : Not regulated as a dangerous goods

15. REGULATORY INFORMATION

International regulation : EU Regulation (EC) No.1272/2008 on classification, labeling and packaging of chemical substances and mixtures.

U.S. Federal regulations : OSHA Hazard Communication Standard, 29 CFR 1910.1200

Thai regulation : Hazardous substance (Praradbunyut 2535)

16. OTHER INFORMATION

Reference data : Globally Harmonized System of Classification and Labeling of Chemicals – GHS

Abbreviation: CLP: EU Regulation (EC) No.1272/2008 on classification, labeling and packaging of chemical substances and mixtures.

U.S. Federal regulations : OSHA Hazard Communication Standard, 29 CFR 1910.1200.

The information supplied herein is related to material specified and may not be valid if used in combination with other material or process. Further the information contained here is believed to reliable and based on correct state of our knowledge. However no guarantees of any kind can be give as to its accuracy.

AEROFLEX®

Special Purpose Contact Adhesive

Aeroseal

Professional / Industrial Grade Contact Adhesive

HVAC | Refrigeration | VRF | Chilled Water | Duct Liner Ductwrap | Hot & Cold-Water Piping

Fast tack, solvent-based, special-purpose contact adhesive specially formulated for bonding adjoining seams of Aerocel® insulation to suitable substrates.

Colors: Amber and Black

Sizes: 1 gallon, 1 quart, 1 pint w/ brush-top, 1/2 pint w/ brush-top

Fast, simple to install

- Fast tack times of 1-3 minutes (depending on ambient conditions)
- Instantly bonds once dry to the touch
- Tapes and coatings can be applied immediately after installation

Superior performance

- Strong permanent bonds
- High water vapor resistance
- Properly sealed seams minimize likelihood of corrosion under insulation (CUI)

All-inclusive insulation solutions:

Aerofix®
Light-weight, rigid pipe supports, pre-insulated with closed-cell EPDM foam rubber and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape® closure system.

Protape®
Zero-perm, EPDM-based, self-adhering rubber tape for sealing adjoining seams and termination points.

Aerocoat™
A premium specialty coating for exterior weather protection and as a decorative finish.

Aerocoat LVOC™
A low-VOC UV protective coating, best choice for LEED® projects.

Product: Modified neoprene solvent-based contact adhesive for bonding Aerocel insulation to itself and to suitable substrates such as clean metal.

Application: Stir contents thoroughly before use. Do not thin. Apply thin even coat to both clean and dry surfaces with short-bristle brush or adhesive roller. Allow short tack time (1-3 minutes or more depending on ambient conditions) *until dry to the touch (no transfer)* before applying both glued surfaces together. The bond is immediate with no adjustability. Moderate pressure should be applied over the entire area to ensure complete contact and a vapor seal.

Aeroseal should be applied when ambient and surface temperatures are above 40°F (4°C) and below 100°F (38°C). Do not allow to freeze.

If adhesive was dry to the touch prior to contact, glued seams may be covered with Protape® and full-coverage applications may be coated with Aerocoat™ or Aerocoat LVOC™ immediately after installation.

Clean Up: Use acetone to clean adhesive residue from tools.

Physical Properties

Composition (Amber or Black):	Synthetic rubber base with added resins and fillers
Solids Content:	Approximately 25% by weight
Net Weight:	6.9 lbs/gal
VOC Content:	417 g/L
Service Temperature Range:	-20°F to 257°F (piping), 200°F (sheets & rolls)
	-28°C to 125°C (piping), 93°C (sheets & rolls)
Flame Spread/Smoke-Developed Index:	10/0 (ASTM E 84, UL 723)
Tack Time:	1-3 minutes (dry to touch, no transfer)
Dry Time:	Immediate (upon contact)
Coverage:	Up to 200 ft2/gal
Shelf Life:	1 year (store at 60°F (16°C) - 80°F (27°C))

Read all warnings on product label before use.

Find us in MasterSpec® a product of The American Institute of Architects BSD SpecLink

282 Industrial Park Road Sweetwater, TN 37874
423.337.2493 Fax: 423.337.7675 Toll Free: 866.AEROCEL
www.aeroflexusa.com

Safety Data Sheet

Aeroseal Adhesive

Date of Issue:
01/01/2020

1 Identification

· **Product identifier**

· **Trade name:** **Aeroseal Adhesive**

· **Manufacturer/Supplier:**
Aeroflex USA, Inc.
282 Industrial Park, Rd.,
Sweetwater, TN 37874 Phone:
Toll Free 866-Aerocel (237-6235)

· **Emergency telephone number:**
ChemTel Inc.

1-800-255-3924 (North America)

+1-813-248-0585 (International)

2 Hazard(s) identification

· **Classification of the substance or mixture**

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.

STOT SE 3 H336 May cause drowsiness or dizziness.

STOT RE 2 H373 May cause damage to the nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**

GHS02 GHS07 GHS08

· **Signal word:** Danger

· **Hazard statements:**

H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to the nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.

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H304 May be fatal if swallowed and enters airways.

· **Precautionary statements:**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a poison center/doctor if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

110-54-3	n-hexane	Flam. Liq. 2, H225 Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336 Eye Irrit. 2B, H320	25-50%
67-64-1	Acetone	Flam. Liq. 2, H225 Eye Irrit. 2A, H319; STOT SE 3, H336	25-50%
108-88-3	Toluene	Flam. Liq. 2, H225 Repr. 2, H361; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
1309-48-4	Magnesium oxide		<2.5%

· **Additional information:**

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For the wording of the listed Hazard Statements, refer to section 16.
For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**
· **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Immediately remove any clothing soiled by the product.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
A person vomiting while lying on their back should be turned onto their side.
· **Most important symptoms and effects, both acute and delayed:**
Headache
Dizziness
Breathing difficulty
Gastric or intestinal disorders
· **Danger:**
Danger of convulsion.
Danger of disturbed cardiac rhythm.
Danger of impaired breathing.
· **Indication of any immediate medical attention and special treatment needed:**
If swallowed, gastric irrigation with added, activated carbon.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Carbon dioxide
Fire-extinguishing powder
Foam
Water fog / haze
· **For safety reasons unsuitable extinguishing agents:** Waterstream.
· **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.

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Wear fully protective suit.

· **Additional information:** Cool endangered containers with water fog.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.

· **Environmental precautions**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up**
Allow to solidify. Pick up mechanically.
Clean the affected area carefully; suitable cleaners are:
Organic solvent
Warm water and cleansing agent

· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**

· **Precautions for safe handling:**
Open and handle receptacle with care.
Use only in well ventilated areas.
Keep out of reach of children.

· **Information about protection against explosions and fires:**
Protect from heat.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **Conditions for safe storage, including any incompatibilities**

· **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.

· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

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110-54-3 n-hexane	
PEL (USA)	Long-term value: 1800 mg/m³, 500 ppm
REL (USA)	Long-term value: 180 mg/m³, 50 ppm
TLV (USA)	Long-term value: 176 mg/m³, 50 ppm Skin; BEI
EL (Canada)	Long-term value: 20 ppm Skin
EV (Canada)	Long-term value: 176 mg/m³, 50 ppm
LMPE (Mexico)	Long-term value: 50 ppm PIEL, IBE
67-64-1 Acetone	
PEL (USA)	Long-term value: 2400 mg/m³, 1000 ppm
REL (USA)	Long-term value: 590 mg/m³, 250 ppm
TLV (USA)	Short-term value: 1187 mg/m³, 500 ppm Long-term value: 594 mg/m³, 250 ppm BEI
EL (Canada)	Short-term value: 500 ppm Long-term value: 250 ppm
EV (Canada)	Short-term value: 750 ppm Long-term value: 500 ppm
LMPE (Mexico)	Short-term value: 750 ppm Long-term value: 500 ppm A4, IBE
108-88-3 Toluene	
PEL (USA)	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL (USA)	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm
TLV (USA)	Long-term value: 75 mg/m³, 20 ppm BEI
EL (Canada)	Long-term value: 20 ppm R
EV (Canada)	Long-term value: 20 ppm
LMPE (Mexico)	Long-term value: 20 ppm A4, IBE
1309-48-4 Magnesium oxide	
PEL (USA)	Long-term value: 15* mg/m³ fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m³ *as inhalable fraction
EL (Canada)	Short-term value: 10** mg/m³ Long-term value: 10* 3** mg/m³ *inhalable fume;**respirable dust and fume
EV (Canada)	Long-term value: 10 mg/m³

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LMPE (Mexico)	inhalable Long-term value: 10* mg/m³ A4, *fracción respirable
· **Ingredients with biological limit values:**	
110-54-3 n-hexane	
BEI (USA)	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis
67-64-1 Acetone	
BEI (USA)	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
108-88-3 Toluene	
BEI (USA)	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

· **Exposure controls**

· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Engineering controls:** No relevant information available.

· **Breathing equipment:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**

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Safety glasses

· **Body protection:** Impervious protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **Appearance:**	
Form:	Liquid
Color:	Amber colored
· **Odor:**	Mild
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Melting point/Melting range:**	Not determined.
· **Boiling point/Boiling range:**	>35
· **Flash point:**	<23
· **Flammability (solid, gaseous):**	Not applicable.
· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/ vapor mixtures are possible.
· **Explosion limits**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidizing properties:**	Non-oxidizing.
· **Vapor pressure:**	Not determined.
· **Density:**	
Relative density:	0.81
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Other information**	No relevant information available.

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10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
To avoid thermal decomposition, do not overheat.
· **Possibility of hazardous reactions**
Reacts with oxygen.
Reacts with oxidizing agents.
Develops readily flammable gases / fumes.
· **Conditions to avoid** No relevant information available.
· **Incompatible materials** No relevant information available.
· **Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Formaldehyde

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:** Based on available data, the classification criteria are not met.
· **LD/LC50 values that are relevant for classification:** None.
· **Primary irritant effect:**
· **On the skin:** Irritant to skin and mucous membranes.
· **On the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.

· **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
· **NTP (National Toxicology Program):**
None of the ingredients are listed.
· **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.

· **Probable route(s) of exposure:**
Ingestion.
Inhalation.
Eye contact.
Skin contact.
· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Based on available data, the classification criteria are not met.
· **Reproductive toxicity:** Suspected of damaging fertility or the unborn child. Route of exposure: Inhalation.
· **STOT-single exposure:** May cause drowsiness or dizziness.
· **STOT-repeated exposure:**
May cause damage to the nervous system through prolonged or repeated exposure. Route of exposure: Inhalation.
· **Aspiration hazard:** May be fatal if swallowed and enters airways.

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12 Ecological information

· **Toxicity**
· **Aquatic toxicity** Toxic to aquatic life with long lasting effects.
· **Persistence and degradability** No relevant information available.
· **Bioaccumulative potential:** No relevant information available.
· **Mobility in soil:** No relevant information available.
· **Additional ecological information**
· **General notes:** Do not allowproduct to reach ground water, water course or sewage system.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1133
· **UN proper shipping name**	
· **DOT, IATA**	Adhesives
· **ADR, IMDG**	ADHESIVES
· **Transport hazard class(es)**	
· **DOT**	

· **Class**	3
· **Label**	3

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· **ADR**

· **Class**	3 (F1)
· **Label**	3

· **IMDG, IATA**

· **Class**	3
· **Label**	3

· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards**	Product contains environm entally hazardous substances: n-hexane
· **Marine pollutant:**	

Yes

· **Special precautions for user**	Warning: Flammable liquids
· **Danger code (Kemler):**	33
· **EMS Number:**	F-E,S-E
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

· **Transport/Additional information:**

· **DOT**	Labeling as a Marine Pollutant is only required for bulk single package shipments. Bulk packaging consists of a maximum capacity of greater than 450 L (119 gallons) for a liquid and a maximum net mass greater than 400 kg (882 pounds) for a solid. (See 171.4(c))

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **ADR**	Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 5.2.1.8.1)

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Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **IMDG**

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 2.10.2.7)

Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· **IATA**

Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 1 L net.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **United States (USA)**

· **SARA**

· **Section 302 (extremely hazardous substances):**	
None of the ingredients are listed.	
· **Section 355 (extremely hazardous substances):**	
None of the ingredients are listed.	
· **Section 313 (Specific toxic chemical listings):**	
110-54-3	n-hexane
108-88-3	Toluene
· **TSCA (Toxic Substances Control Act)**	
All ingredients are listed.	

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**	
None of the ingredients are listed.	
· **Chemicals known to cause developmental toxicity for females:**	
None of the ingredients are listed.	
· **Chemicals known to cause developmental toxicity for males:**	
110-54-3	n-hexane
· **Chemicals known to cause developmental toxicity:**	

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108-88-3	Toluene	
· **EPA (Environmental Protection Agency):**		
110-54-3	n-hexane	II
67-64-1	Acetone	I
108-88-3	Toluene	II
· **IARC (International Agency for Research on Cancer):**		
None of the ingredients are listed.		
· **Canadian Domestic Substances List (DSL):**		
All ingredients are listed.		

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** May 11, 2018 / -

· **Abbreviations and acronyms:**
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistant, Bio-accumulable, Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health Administration
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1

· **Sources**
Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

AEROFLEX®

Protective/Decorative Coating for EPDM Insulation

Aerocoat™

Premium Acrylic Emulsion Coating for Aerocel® EPDM Insulations

AEROFLEX®

Aerocoat™

Premium Pure Acrylic Emulsion Coating

HVAC | Refrigeration | VRF | Chilled Water
Ductwrap | Hot & Cold-Water Piping

Low-VOC emissions, 100% pure acrylic emulsion, water-based latex coating for Aerocel® EPDM insulation. Provides a decorative finish on interior installations, UV protection and code compliance for exterior applications.

U.S. energy codes require mandatory shielding of pipe insulation in exterior environments. Coatings such as Aerocoat are acceptable; adhesive tapes alone are not.

Availability: 1-gallon containers (White)

Fast, simple to install

Ready to apply right out of the container (no diluting or tinting recommended)

Two coats required to achieve 100% coverage

Superior performance

Protects Aerocel® insulation from environmental factors such as solar radiation, moisture, wind, equipment maintenance

400% Elongation – Coating will expand and contract with insulation

White coating reflects solar radiation

Prolongs product life

Safe for indoor & outdoor environments

Water-based formula

Low-VOC emissions

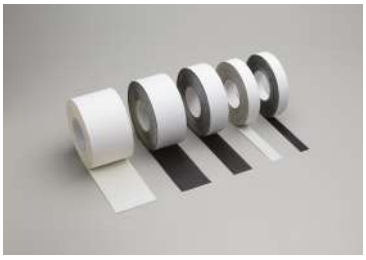
Complies with LEED® low-VOC emission requirements for interior- and exterior-applied products

Non-flammable and non-toxic

All-inclusive insulation solutions:

Aerofix®
Light-weight, rigid pipe supports, pre-insulated with closed-cell EPDM foam rubber and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape closure system.

Aeroflex Adhesives
Specially formulated adhesive for bonding of Aerocel insulations. Fast tack and LVOC formulations available.



Protape®
EPDM-based, self-adhering rubber tape for sealing butt joints and termination points.

Product: White, 100% pure acrylic emulsion, water-based latex coating specially formulated to protect Aerocel insulation for interior or exterior applications.

Application: If Aeroseal or Aeroseal LVOC™ Black adhesive was dry to the touch prior to contact, Aerocoat may be applied immediately after installation. For Aerocel REF 1520™ adhesive, refer to data sheet for required dry times. Before applying make sure insulation surfaces are clean and free from oil, grease, dust or loose portions of any previous coating. Stir Aerocoat thoroughly and apply with brush or roller to the clean surface. No primer is required. Apply 2 coats allowing a minimum of 4 hours drying time (75°F, 70% RH) before applying second coat. Dilution or tinting of coating is not recommended due to negative impact on product performance. Recommended application ambient temperature is 50°F (10°C) or higher. Full cure time is 24 hours.

Clean Up: Clean Water

Physical Properties

Composition:	Acrylic emulsion coating (100%)
Solids Content:	Approximately 50% by weight
Net Weight:	10 lbs/gal
Appearance:	Semi-Gloss
VOC Content:	116.2 g/L
UV Resistance:	Excellent
Fungi Resistance:	Excellent
Flammability:	Non-flammable
Coverage:	Up to 400 ft2/gal
Application:	Brush or roller
Dry Time:	Minimum of 4 hours between coats (75°F, 70% RH)
Reapply:	3-5 years
Shelf Life:	1 year (store at room temperature, avoid freezing)

Additional Approvals, Compliances, Etc.

ANSI/ASHRAE/IES Standard 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
IECC®	International Energy Conservation Code®
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1	International Green Construction Code® (igCC®)
CA Title 24	California Building Energy Efficiency Standards
MEA #171-04-M	City of New York Material and Acceptance Pipe Insulation
CDPH Standard Method v1.2	Low Emitting Materials, Interior Paints & Coatings

Potential LEED® Credit Contributions

Energy & Atmosphere (EA)	Prerequisite: Minimum Energy Performance Credit: Optimize Energy Performance
Indoor Environmental Quality (EQ)	Credit: Low-Emitting Materials Credit: Indoor Air Quality Assessment Credit: Thermal Comfort Credit: Acoustic Performance
Innovation (IN)	Credit: Occupant Comfort Survey

AEROFLEX®

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www.aeroflexusa.com

031021

SAFETY DATA SHEET

AEROCOAT™ (White)

Date of Issue:
01/01/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of Product:	Pure Acrylic Emulsion Paint
Trade Name:	AEROCOAT™ (WHITE)
Manufacturer/Supplier:	Aeroflex USA, Inc. 282 Industrial Park Road Sweetwater, TN 37874
Telephone Number:	Toll Free 866-AEROCEL(237-6235)
Emergency Telephone Number:	ChemTel, Inc. 1-800-255-3924 (North America) +1-813-248-0585 (International)

2. Hazards Identification

GHS Label

Signal Word : Danger

[GHS Classification]		**Hazard Category**
Physical Hazard	:	0
Health Hazard	: Acute toxicity (Oral / LD50)	0
	: Acute toxicity (Dermal / LD50)	0
	: Acute toxicity (Inhalation : vapours)	0
	: Skin corrosion / Irritation	0

Health Hazard (Cont.)	: Serious eyes damage / Eyes irritation	0
	: Respiratory sensitation	0.00
	: Skin sensitation	0.00
	: Germ cell mutagenicity	0.00
	: Carcinogenicity	0.00
	: Reproductive toxicity	0.00
	: Specific target organ systemic toxicity-Single exposure	0.00

Hazard statements : This substance is flammable liquid and vapour. It may be harmful if swallowed, harmful in contact with skin and if inhaled, causes mild skin and eye irritation, may causes allergy or asthma symptoms or breathing difficulties if inhaled, may cause an allergy skin reaction, may cause cancer, suspected of damaging fertility or the unborn child and may be fetal if swallowed and enters airways.

Short-term Exposure : 0

Long-term Exposure : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Health Hazardous Components : This is water based paint formulated with selected pure acrylic emulsion mixed with other special chemicals. Following are the main ingredients in this product:

Propylene Glycol CAS no. 57-55-6: 1 max%

Titanium Oxide CAS no. 13463-67-7: 15-20%

Acrylic Polymer CAS no. Not Hazard: 30-35%

Aqua Ammonia CAS no. 1336-21-6: 0.2 max %

2,2,4-Trimethyl-1,3-pentanediol Monoisobutyrate CAS no. 25265-77-4: 0.5%

Water CAS no. 7732-18-5: 20-25%

4. FIRST AID MEASURES

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention

Eye contact

Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of over-exposure persists

Ingestion

If swallowed, do not include vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Skin Contact

Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.

Other First Aid

Due to possible aspiration into the lungs, do not include vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

5. FIRE FIGHTING MEASURES

Flash Point

No data

Extinguishing Media

Use alcohol foam, carbon dioxide, dry chemical or water fog/ spray when fighting fires involving this material

Protective Equipment

As in any fire. Wear self-contained breathing apparatus pressure-demand, MSHA/ NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal proper protective equipment as listed on section 8

Spill Clean-up Measures

Absorb spill with inert material (e.g. dry sand), then place in chemical waste container. Provide ventilation clean-up immediately and observing precautions in the protective equipment section. Environmental Precautions Avoid runoff into storm sewers, ditches and waterways.

7. HANDING AND STORAGE

Handling condition

Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing

Storage

Store in a cool, dry, well-ventilated area away from sources of heat, combustible materials and incompatible substances. Keep container tightly closed when not in use.

Hygiene Practices

Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls

Use appropriate engineering control such as process enclosures, local exhaust ventilation or other engineering control to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels.

Skin Protection Description

Chemical resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Hand Protection Description

Wear appropriate protective gloves. Consult gloves manufacturer's data for permeability data.

Eye/ Face Protection

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European Standard EN166.

Respiratory Protection

A NIOSH approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limit.

Other Protective

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State/ Appearance	: Liquid
Color	: White
pH	: 8.5-10.0
Vapor Density	: Greater than 1 (Air = 1)
Density	: 1.15-1.25 kg/lite
Molecule Formula	: Mixture Molecule
Weight	: Mixture
Flashpoint	: No data

10. STABILITY AND REACTIVITY

Chemical stability : Stable under normal temperatures and pressure

Condition to Avoid : Heat, Flames, in compatible materials and freezing or temperatures below about 32 °F

Incompatibilities with : Oxidizing agents, strong acids and alkalis Other Material Hazardous Polymerization : Not reported Hazardous Decomposition : Incomplete combustion may produce carbon monoxide Product and other toxic gases

11. TOXICOLOGICAL INFORMATION

No.	Component / Chemical Name	TLV (ACGIH)	PEL (OSHA)	$LD_{50}M$	$LD_{50}S$	LC_{50} [Inhale]
1)	0	0	0	0	0	0
2)	0	0	0	0	0	0
3)	0	0	0	0	0	0
4)	0	0	0	0	0	0
5)	0	0	0	0	0	0

Sign:

TLV-TWA: Threshold Limit Values for chemical substances in workroom air or an 8-hour workday, 40-hour work week.

ACGIH: The American Conference of Governmental Industrial Hygienists (TLV)

OSHA: The Occupational Safety and Health Administration (PEL = Permissible Exposure Limit)

$LD_{50}M$: Mouth (Oral-rat) mg/kg. $LD_{50}S$: Dermal (Skin-rabbit) mg/kg. LC_{50}: Inhalation / Vapours (rat) mg/l.

12. ECOLOGICAL INFORMATION

Eco-toxicity : No eco-toxicity data was found for the product

Environment Fate : No environmental information found for this product

13. DISPOSAL CONSIDERATION

Waste Disposal : Consult with the USEPA guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance arrange disposal.

14. TRANSPORTATION INFORMATION

Proper Shipping Name	:	Liquid, N.O.S.
UN. Class	:	0
UN. Number	:	0
Packing Group	:	0
Land Transportation	:	Accord to each transportation under “ADR/RID code”
Air Transportation	:	Accord to each transportation under “ICAO/IATA code”
Maritime Transportation	:	Accord to each transportation under “IMO/IMDG code”

15. REGULATORY INFORMATION

Thai regulation : Hazardous substance (Praradbunyut 2535)

: Volatile Organic Content in air

16. OTHER INFORMATION

Note : **NA: No data** **NC: Not Classify**

Reference data : Globally Harmonized System of Classification and Labelling of Chemicals - GHS (Version 3)

: Emergency Response Guidebook, 2008

: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992

: http://www.cdc.gov/niosh/rtecs/gf7e5ba8.html

Abbreviation:

CLP: EU Regulation (EC) No.1272/2008 on classification, labeling and packaging of chemical Substances and mixtures.

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 guidance for safe handling, use, processing, storage, transportation