

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT & COMPANY INFORMATION			
Material Identification: MicroGuard AD35 HVAC/R Clear Coil Protective Treatment (Part A)			
Adsil, Inc. 1901 Mason Avenue, Suite #101 Daytona Beach, FL 32117	386-274-1382 PHONE 386-274-1798 FAX CHEMTREC: 1-800-424-9300		
SECTION 2: OSHA HAZARDOUS INGREDIENTS			
<u>C.A.S. Number</u>	<u>Wt%</u>	<u>Ingredients</u>	<u>Exposure Limits</u>
Mixture – Proprietary	>98%	Alkoxysilanes	No exposure limits established
67-56-1	<2%	Methyl Alcohol	OSHA PEL (final rule) and ACGIH TLV-skin: 200 ppm, STEL 250 ppm.
SECTION 3: HAZARDS IDENTIFICATION			
NFPA/HMIS Rating: Health 1, Flammability 3, Reactivity 0 Primary Routes of Entry: Skin Contact, Eye Contact, Inhalation, Ingestion Effects of Overexposure: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Prolonged inhalation of spray mist can cause damage to respiratory tract. Ingestion: Product generates methyl alcohol, which may cause blindness and possibly death if swallowed. Signs & Symptoms of Exposure: Burning pain in the nose and throat (inhalation), pain, redness and tearing (eye exposure), itching or burning (skin exposure).			
SECTION 4: FIRST AID MEASURES			
Skin Contact: No first aid should be needed. If itching or burning occurs, wash area with soap and water. Eye Contact: Immediately flush with water for 15 minutes. Get medical attention. Inhalation: Remove to fresh air. Get medical attention if any ill effects persist. Ingestion: Get immediate medical attention. If conscious, give lukewarm water (pint or ½ liter). Do not induce vomiting. Lie down, keep warm and cover eyes to exclude light. Comments: Treat same as methyl alcohol poisoning.			
SECTION 5: FIRE FIGHTING MEASURES			
Flash Point: 46.9° F. / 8.3° C. Fire Hazards: Static electricity may accumulate and ignite vapors. Prevent a possible fire hazard by suitable means, such as bonding or grounding, vapor dilution and the like. Vapors are heavier than air and can travel along the ground to remote ignition sources such as pilot lights. Unusual Fire Hazards: Thermal breakdown of this product during fire or extremely high heat conditions may evolve the following hazardous decomposition products: Silicon Dioxide, Carbon Dioxide, and traces of incompletely burned carbon compounds, trace formaldehyde. Extinguishing Media: Carbon Dioxide (CO ₂), Water, Dry Chemical. Fire Fighting Procedures: Self contained breathing apparatus and full turn out gear should be worn when fighting fires involving chemicals. Heat exposure pressurizes closed containers. Evacuate area immediately.			

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment/Clean-up: Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Remove possible ignition sources and if needed, use non-sparking tools and equipment. To prevent spontaneous combustion, store rags, mops, absorbent, etc; used during cleanup only in appropriate containers or covered with water. Mop, wipe or soak up spills with absorbent material and contain for salvage or disposal. For large spills, provide diking or other appropriate containment to keep material from spreading. Clean any remaining slippery surfaces by appropriate techniques, such as washing with mild, caustic detergents or solutions or high pressure steam for larger areas. Observe any safety precautions applicable to the cleaning material used.

SECTION 7: HANDLING & STORAGE

Handling: No special precautions.

Storage: Keep container closed and store away from heat, sparks and open flame. Store in a cool, dry area and away from water or moisture.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wash at mealtime and end of shift; no special protection is generally needed.

Eye Protection: Safety glasses at minimum.

Respiratory Protection: Use respiratory protection at all times during handling and application.

Protective Equipment: Eyewash station (bottle) should be within direct access of work area.

Personal Hygiene: Do not get in eyes or absorbed into clothing. Avoid prolonged contact with skin. Wash thoroughly after handling. Wash contaminated clothing before reuse.

Engineering Controls: For in field installations, use local exhaust ventilation when using in enclosed areas. For spray booth installations provide air-sampling data to show exposures are within recommended exposure guidelines. Industrial hygiene personnel can assist in judging the adequacy of engineering controls.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

pH: Not Applicable (non-aqueous)

Solubility in water: Hydrolyzes

Appearance: Clear Colorless Liquid

Odor: Strong Odor

Specific Gravity @ 25° C: 0.95

Boiling Point: >35° C., > 95° F.

Freeze Point: Not Applicable

VOC Content: 657 grams per liter (Components A, B, C mixed) Method 24.

SECTION 10: STABILITY & REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: None known.

Conditions to Avoid: Methyl alcohol forms when exposed to water or humid air.

Materials to Avoid: Concentrated mineral acids, strong oxidizers, aldehydes, halogens and halogen compounds.

SECTION 11: TOXICOLOGICAL INFORMATION			
Methyl alcohol forms on contact with water, moisture or humid air. Provide ventilation to control exposure within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV – skin: TWA 200 ppm, STEL 250 ppm.			
SECTION 12: ECOLOGICAL INFORMATION			
There is no data available.			
SECTION 13: DISPOSAL CONSIDERATIONS			
Use excess product in an alternate application. Handle disposal of waste material in a manner which complies with local, state, district and federal regulations.			
SECTION 14: TRANSPORT INFORMATION			
DOT Information (49 CFR 172.101)			
Proper Shipping Name: COATING SOLUTION			
Hazard Technical Name: ALKOXYSILANES			
Hazard Class: 3			
UN Number: UN1139			
Packing Group: II			
SECTION 15: REGULATORY INFORMATION			
TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of chemical substances.			
EPA SARA Title III Chemical Listings:			
Section 302 CERCLA Extremely Hazardous Substances: None			
Section 304 CERCLA Hazardous Substances: None			
Section 312 Hazard Class:			
Acute: Yes			
Chronic: Yes			
Fire: Yes			
Pressure: No			
Reactive: No			
Section 313 Toxic Chemicals:	<u>C.A.S. Number</u>	<u>Wt%</u>	<u>Ingredient Name</u>
	67-56-1	<2.0%	Methyl Alcohol
<u>Other U.S. State Regulations:</u>			
California Proposition 65: This material does not contain any chemicals known to the State of California to cause cancer or reproductive effects.			
Massachusetts Right-to-Know: This material contains no other listed components; Methyl Alcohol, 67-56-1.			
New Jersey Right-to-Know: This material contains no other listed components; Methyl Alcohol, 67-56-1.			
Pennsylvania Right-to-Know: This material contains no other listed components; Methyl Alcohol, 67-56-1.			
<u>Canadian Regulations:</u>			
This product has been classified by the raw material suppliers in accordance with the Hazard Criteria of the CPR and the MSDS contains all the information required by CPR.			
Canadian WHMIS: None.			
Canadian DSL Status: This material or its components are listed on the Canadian Domestic Substances List.			
Canadian Ingredient Disclosure List: This material contains no other listed components.			
Revision Date: January 2010	Prepared by: MSDS Coordinator @ 386-274-1382 Daytona Beach, Florida 32117		

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT & COMPANY INFORMATION			
Material Identification: MicroGuard AD35 HVAC/R Clear Coil Protective Treatment (Part B)			
Adsil, Inc. 1901 Mason Avenue, Suite #101 Daytona Beach, FL 32117	386-274-1382 PHONE 386-274-1798 FAX CHEMTREC: 1-800-424-9300		
SECTION 2: OSHA HAZARDOUS INGREDIENTS			
<u>C.A.S. Number</u>	<u>Wt%</u>	<u>Ingredients</u>	<u>Exposure Limits</u>
7732-18-5	96-98%	DI Water	Not Applicable
64-19-7	2-4%	Acetic Acid	TWA 10 ppm, STEL n/e
SECTION 3: HAZARDS IDENTIFICATION			
NFPA/HMIS Rating: Health 0, Flammability 0, Reactivity 0 Primary Routes of Entry: Skin Contact, Eye Contact, Inhalation, Ingestion Effects of Overexposure: Skin: May cause mild skin irritation. Eyes: May cause eye irritation. Inhalation: None. Ingestion: None.			
SECTION 4: FIRST AID MEASURES			
Skin Contact: None. Eye Contact: None should be required. If mild discomfort occurs, flush with clean water. Inhalation: None. Ingestion: None. Comments: No first aid should be necessary for DI water and <4% acetic acid exposures.			
SECTION 5: FIRE FIGHTING MEASURES			
Flash Point: None. Fire Hazards: None. Unusual Fire Hazards: None. Extinguishing Media: Not flammable. Fire Fighting Procedures: Not applicable.			
SECTION 6: ACCIDENTAL RELEASE MEASURES			
Containment/Clean-up: Not applicable.			
SECTION 7: HANDLING & STORAGE			
Handling: None. Storage: Keep from freezing.			
SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION			
Skin Protection: None.		Eye Protection: None.	
Respiratory Protection: None.		Protective Equipment: None.	
Personal Hygiene: None.		Engineering Controls: None.	

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES**pH:** 4.0 (+/- 0.5)**Solubility in water:** N/A**Appearance:** Clear Colorless Liquid.**Odor:** Slight Vinegar.**Specific Gravity @ 25° C.:** 1.0**Boiling Point:** 100° C., 212° F.**Freeze Point:** 0° C., 32° F.**VOC Content:** Zero.**SECTION 10: STABILITY & REACTIVITY****Stability:** Stable. **Hazardous Polymerization:** Will not occur. **Hazardous Decomposition:** None.**Conditions to Avoid:** None known. **Materials to Avoid:** None known.**SECTION 11: TOXICOLOGICAL INFORMATION**

Not Applicable.

SECTION 12: ECOLOGICAL INFORMATION

Not Applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

Not Applicable.

SECTION 14: TRANSPORT INFORMATION

DOT Information (49 CFR 172.101): Not a regulated material.

SECTION 15: REGULATORY INFORMATION**EPA SARA Title III Chemical Listings:****Section 302 CERCLA Extremely Hazardous Substances:** None.**Section 304 CERCLA Hazardous Substances:** None.**Section 312 Hazard Class:** Acute: No Chronic: No Fire: No Pressure: No Reactive: No**Section 313 Toxic Chemicals:** None.**Other U.S. State Regulations:****California Proposition 65:** This material does not contain any chemicals known to the State of California to cause cancer or reproductive effects.**Massachusetts:** This material contains no listed components.**New Jersey Right-to-Know List:** This material contains no listed components.**Pennsylvania Right-to-Know List:** This material contains no listed components.**Canadian Regulations:**

This product has been classified by the raw material suppliers in accordance with the Hazard Criteria of the CPR and the MSDS contains all the information required by CPR.

Canadian WHMIS: None.**Canadian DSL Status:** This material or its components are listed on the Canadian Domestic Substances List.**Canadian Ingredient Disclosure List:** This material contains no listed components.**Revision Date:** January 2010**Prepared by:** MSDS Coordinator @ 386-274-1382
Daytona Beach, Florida 32117

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT & COMPANY INFORMATION			
Material Identification: MicroGuard AD35 HVAC/R Clear Coil Protective Treatment (Part C)			
Adsil, Inc. 1901 Mason Avenue, Suite #101 Daytona Beach, FL 32117	386-274-1382 PHONE 386-274-1798 FAX CHEMTREC: 1-800-424-9300		
SECTION 2: OSHA HAZARDOUS INGREDIENTS			
<u>C.A.S. Number</u>	<u>Wt%</u>	<u>Ingredients</u>	<u>Exposure Limits</u>
67-63-0	36-38%	Isopropyl Alcohol	TWA 400 ppm, STEL 500 ppm
52125-53-8	28-32%	Glycol Ether PE	Not Established
1569-01-3	28-32%	Glycol Ether PNP	Not Established
SECTION 3: HAZARDS IDENTIFICATION			
NFPA/HMIS Rating: Health 1, Flammability 3, Reactivity 0 Primary Routes of Entry: Skin Contact, Eye Contact, Inhalation, Ingestion Effects of Overexposure: Skin: May cause skin irritation. Eyes: Causes eye irritation. Inhalation: Prolonged inhalation of spray mist can cause damage to respiratory tract. Ingestion: May cause blindness and possibly death if swallowed. Signs & Symptoms of Exposure: Burning pain in the nose and throat (inhalation), pain, redness and tearing (eye exposure), itching or burning (skin exposure).			
SECTION 4: FIRST AID MEASURES			
Skin Contact: No first aid should be needed. If itching or burning occurs, wash area with soap and water. Eye Contact: Immediately flush with clean water for 15 minutes. Get medical attention. Inhalation: Remove to fresh air. Get medical attention if ill effects persist. Ingestion: Get medical attention immediately. Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. If large quantity is swallowed, give ½ liter of lukewarm water if victim is conscious. Comments: Treat the same as methyl alcohol poisoning.			
SECTION 5: FIRE FIGHTING MEASURES			
Flash Point: 58.0° F. / 12.8° C. Fire Hazards: Static electricity may accumulate and ignite vapors. Prevent a possible fire hazard by suitable means, such as bonding and grounding, inert gas purge, vapor dilution and the like. Vapors are heavier than air and can travel along the ground to remote ignition sources. Extinguish all pilot lights in vicinity. Unusual Fire Hazards: Thermal breakdown of this product during fire or extremely high heat conditions may evolve the following hazardous decomposition products: Silicon Dioxide, Carbon Dioxide and traces of incompletely burned carbon products, Nitrogen Oxides, Formaldehyde. Extinguishing Media: Carbon Dioxide (CO ₂), Water Fog, Dry Chemical. Fire Fighting Procedures: Self contained breathing apparatus and full turn out gear should be worn when fighting fires involving chemicals. Heat exposure pressurizes closed containers. Evacuate area immediately.			

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment/Clean-up: Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state, district and federal waste management regulations. Remove possible ignition sources and if needed, use non-sparking equipment. Mop, wipe or soak up with absorbent material and contain for salvage or disposal. For large spills, provide diking or other means of containment to keep material from spreading. Clean any remaining slippery surfaces by appropriate techniques, such as washing with mild, caustic detergents or solutions, or high-pressure steam for larger areas. Observe any safety precautions applicable to the cleaning material used. Use full-face respirator and suitable protective wear.

SECTION 7: HANDLING & STORAGE

Handling: No special precautions.

Storage: Keep the container closed and away from heat, sparks and open flame. Store away from water or moisture.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection: Wash at mealtime and end of shift; no special protection is generally needed.

Eye Protection: Safety glasses at minimum.

Respiratory Protection: Use respiratory protection at all times during handling and application.

Protective Equipment: Eyewash station (bottle) should be within direct access of work area.

Personal Hygiene: Do not get in eyes or absorbed into clothing. Avoid prolonged exposure with skin. Wash thoroughly after handling. Wash contaminated clothing before reuse.

Engineering Controls: For in field installations, use local exhaust ventilation when using in enclosed areas. For spray booth installations provide air-sampling data to show exposures are within recommended exposure guidelines. Industrial hygiene personnel can assist in judging the adequacy of engineering controls.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

pH: Not Applicable (non-aqueous).

Solubility in water: Complete.

Appearance: Colorless to Pale Yellow.

Odor: Strong Odor (alcohol).

Specific Gravity @ 25° C: 0.79

Boiling Point: 88° C., 190° F.

Freeze Point: Not Applicable.

VOC Content: 657 grams per liter (Components A, B, C mixed) Method 24.

SECTION 10: STABILITY & REACTIVITY

Stability: Stable.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: None known.

Conditions to Avoid: None known.

Materials to Avoid: Oxidizing material can cause a reaction. Water or moisture can cause hazardous vapors to form as described in Section 11.

SECTION 11: TOXICOLOGICAL INFORMATION

When heated in its liquid state to temperatures above 150° C. / 302° F., in the presence of air, product can form trace vapors of formaldehyde, which is a known skin and respiratory sensitizer and an irritant to the eyes, nose, throat, skin and digestive system.

SECTION 12: ECOLOGICAL INFORMATION

There is no data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Use excess product in an alternate application. Handle disposal of waste material in a manner which complies with local, state, district and federal regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Information (49 CFR 172.101)

Proper Shipping Name: COATING SOLUTION

Hazard Technical Name: SOLVENT MIXTURE

Hazard Class: 3

UN Number: UN 1139

Packing Group: II

SECTION 15: REGULATORY INFORMATION

TSCA Status: All chemical substances in this material are included on or exempt from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings:

Section 302 CERCLA Extremely Hazardous Substances: None.

Section 304 CERCLA Hazardous Substances: None.

Section 312 Hazard Class:

Acute: Yes

Chronic: Yes

Fire: Yes

Pressure: No

Reactive: No

Section 313 Toxic Chemicals: None.

Other U.S. State Regulations:

California Proposition 65: This material does not contain any chemicals known to the State of California to cause cancer or reproductive effects.

Massachusetts Right-to-Know: This material contains no other listed components.

New Jersey Right-to-Know: This material contains no other listed components.

Pennsylvania Right-to-Know: This material contains no other listed components.

Canadian Regulations:

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Canadian WHMIS: None.

Canadian DSL Status: This material or its components are listed on the Canadian Domestic Substances List.

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