

Safety Data Sheet

Issue Date: 01-Feb-2013

Revision Date: 16-March-2020

Version 1

1. IDENTIFICATION

Product Identifier

Product Name MicroGuard AD 35 HVAC/R Clear Coil Protective Treatment (Part A)

Other means of identification

SDS # ADSIL-013
UN/ID No UN1139

Recommended use of the chemical and restrictions on use

Recommended Use Clear Anti Corrosive HVAC/R Coating.

Details of the supplier of the safety data sheet

Supplier Address

Adsil, Inc.
1901 Mason Avenue, Suite #101
Daytona Beach, FL 32117

Emergency Telephone Number

Company Phone Number Phone: 800-549-2539
Fax: 386-274-1798
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear liquid

Physical State Liquid

Odor Strong

Classification

Acute toxicity - Oral Category 3
Specific target organ toxicity (single exposure) Category 1
Flammable Liquids Category 3

Signal Word

Danger

Hazard Statements

Harmful if swallowed
Causes damage to organs
Highly flammable liquid and vapor



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF SWALLOWED: Rinse mouth
 IN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a cool, dry area and away from heat, sparks and open flame.
 Store in a well-ventilated place.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Alkoxysilanes	Proprietary **	>98
Methyl Alcohol	67-56-1	<2%

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash with soap and water. Consult a doctor if skin irritation is permanent.
Inhalation	Remove to fresh air. Get medical attention if discomfort persists.
Ingestion	If swallowed, rinse mouth with water. Do not induce vomiting. Get immediate medical attention.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation. Prolonged exposure in poorly ventilated area may cause respiratory irritation. Product generates methyl alcohol on hydrolysis, which may cause blindness and possibly death if swallowed.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat as methyl alcohol poisoning

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Carbon dioxide (CO₂). Water. Foam. Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Vapors are heavier than air and may spread along floors. Vapors may travel to source of ignition and flash back. Closed containers may explode due to buildup of pressure when exposed to extreme heat.

Hazardous Combustion Products Silicon dioxide. Carbon oxides. Traces of incompletely burned carbon compounds. Formaldehyde.

Sensitivity to Static Discharge Sensitive to static discharge.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area and fight fire from a safe distance.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required. Remove all sources of ignition.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Contain and collect with an inert absorbent and place into an appropriate container for disposal. Rinse area thoroughly. Clean up in accordance with all applicable regulations. Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Ground/bond container and receiving equipment. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from sources of ignition. Store away from water or moisture.

Incompatible Materials Acids. Strong oxidizers. Alkalinity. Aldehydes. Halogens. Halogen compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name
Methyl alcohol
67-56-1

ACGIH TLV
STEL: 250 ppm
TWA: 200 ppm
S*

OSHA PEL
TWA: 200 ppm
TWA: 260 mg/m³
(vacated) TWA: 200 ppm
(vacated) TWA: 260 mg/m³
(vacated) STEL: 250 ppm
(vacated) STEL: 325 mg/m³
(vacated) S*

NIOSH IDLH
IDLH: 6000 ppm
TWA: 200 ppm
TWA: 260 mg/m³
STEL: 250 ppm
STEL: 325 mg/m³

Appropriate engineering controls**Engineering Controls**

Apply technical measures to comply with the occupational exposure limits. Eyewash stations. 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.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Chemical splash goggles or face shield.

Skin and Body Protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations

Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid	Odor	Strong
Appearance	Clear liquid	Odor Threshold	Not determined
Color	Not determined		

Property

Property	Values	Remarks • Method
pH	Not applicable (non-aqueous)	
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	> 35 °C / >95 °F	
Flash Point	8.3 °C / 46.9 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Flammable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	0.95	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Methyl alcohol forms when exposed to water or humid air.

Hazardous Polymerization Hazardous polymerization will not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Acids. Strong oxidizers. Alkalinity. Aldehydes. Halogens. Halogen compounds.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Alkoxysilanes	= 2060 mg/kg (Rat)	-	-
Methyl alcohol 67-56-1	= 9500 mg/kg (Rat)	= 9500 mg/kg (Rabbit)	= 42.1 mg/L (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure Causes damage to organs.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity none

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methyl alcohol 67-56-1	EC50 >120 mg/L: 72h OECD TG 201	LC50 Rainbow Trout: >110ml/L 96h OECD TG 203	EC50 >100 mg/L: 3h OECD TG 209	

Persistence/Degradability

Not readily biodegradable

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Methyl alcohol 67-56-1	-0.77

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl alcohol 67-56-1		Included in waste stream: F039		U154

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Methyl alcohol 67-56-1	Toxic Ignitable

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II

IATA

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II

IMDG

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA	All ingredients are listed or exempt from listing on Chemical Substance Inventory
DSL	Listed

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances***US Federal Regulations****CERCLA**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl alcohol 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Methyl alcohol - 67-56-1	67-56-1	<2	1.0

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
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Methyl alcohol - 67-56-1

Developmental

U.S. State Right-to-Know Regulations

Chemical Name
Methyl alcohol
67-56-1

New Jersey
X

Massachusetts
X

Pennsylvania
X

16. OTHER INFORMATION**NFPA****Health Hazards**

2

Flammability

3

Instability

0

Special Hazards

Not determined

HMIS**Health Hazards**

2

Flammability

3

Physical Hazards

1

Personal Protection

Not determined

Issue Date: 01-Feb-2013
Revision Date: 07-May-2014
Revision Note: New format

Disclaimer

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, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Safety Data Sheet

1. IDENTIFICATION

Product Identifier

Product Name MicroGuard AD 35 HVAC/R Clear Coil Protective Treatment (Part B)

Other means of identification

SDS # ADSIL-014
UN/ID No Not Regulated

Recommended use of the chemical and restrictions on use

Recommended Use Mix with MicroGuard AD 35 Part A of HVAC/R Clear Coil Protective Treatment.

Details of the supplier of the safety data sheet

Supplier Address

Adsil, Inc.
 1901 Mason Avenue, Suite #101
 Daytona Beach, FL 32117

Emergency Telephone Number

Company Phone Number Phone: 800-549-2539
 Fax: 386-274-1798
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Colorless liquid

Physical State Liquid

Odor Faint

Classification

Acute toxicity - None

Specific target organ toxicity (single exposure) - None

Category N/A

Category N/A

Signal Word

None

Hazard Statements

None

Precautionary Statements - Prevention

If contact occurs, wash face, hands and exposed skin.

Wear eye protection.

Precautionary Statements - Response

IF ON SKIN (or hair): Rinse skin with water.

IF SWALLOWED: Rinse mouth.

Precautionary Statements - Storage

Keep from freezing.

Precautionary Statements - Disposal

Dispose of contents to local sewer.

Other Hazards

None

Unknown Acute Toxicity

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Acetic Acid	64-19-7	2-5
Water	7732-18-5	95-98

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES**First Aid Measures**

Eye Contact	Flush eyes with clean water if discomfort occurs.
Skin Contact	Wash with soap and water.
Inhalation	None.
Ingestion	None.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation. Product is a low pH solution.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat as a mild acid irritant.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

None

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

None

Hazardous Combustion Products None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

None.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment	None.
Methods for Clean-Up	None.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Take precautionary measures against static discharges.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep from freezing.
Incompatible Materials	Alkalinity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetic Acid 2-5%	N/A	N/A	N/A

Appropriate engineering controls

Engineering Controls	None
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Chemical splash goggles.
Skin and Body Protection	Wear gloves.
Respiratory Protection	None.

General Hygiene Considerations Wash hands before breaks and after handling the product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid	Odor	Faint
Appearance	Colorless liquid	Odor Threshold	Not determined
Color	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.0 (+/-0.5)	
Melting Point/Freezing Point	N/A	
Boiling Point/Boiling Range	100°C / 212°F	
Flash Point	None	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not Flammable	
Upper Flammability Limits	Not determined	

Lower Flammability Limit	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	1.0
Water Solubility	Soluble in water
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None.

Hazardous Polymerization Hazardous polymerization will not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Alkalinity.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic Acid 2-5%	N/A	N/A	N/A

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure None.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity None.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

None.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetic Acid 2-5%	None.	None.	None.	None.

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Acetic Acid 2-5%	None.

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Acetic Acid 2-5%	None.	None.	None.	None.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Acetic Acid 2-5%	N/A

14. TRANSPORT INFORMATION

Note	None.
DOT	Not a regulated material.
IATA	Not a regulated material.
IMDG	Not a regulated material.

15. REGULATORY INFORMATION

International Inventories

TSCA	All ingredients are listed or exempt from listing on Chemical Substance Inventory
DSL	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Acetic Acid 2-5%	N/A	N/A	N/A

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Acetic Acid 2-5%	64-19-7	2-5%	N/A

US State Regulations

California Proposition 65

This product does not contain known to the state of California to cause cancer or reproductive effects.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
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Acetic Acid 2-5%

X

X

X

16. OTHER INFORMATION

NFPA**Health Hazards****Flammability****Instability****Special Hazards**

0

0

0

Not determined

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

0

0

0

Not determined

Issue Date: 20-Feb-2015

Revision Date: New

Revision Note: New format

Disclaimer

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End of Safety Data Sheet

Safety Data Sheet

1. IDENTIFICATION

Product Identifier

Product Name MicroGuard AD 35 HVAC/R Clear Coil Protective Treatment (Part C)

Other means of identification

SDS # ADSIL-0015
UN/ID No UN1139

Recommended use of the chemical and restrictions on use

Recommended Use Mix with MicroGuard AD 35 (Part A + Part B mixture) of Clear Coil Protective Treatment

Details of the supplier of the safety data sheet

Supplier Address

Adsil, Inc.
 1901 Mason Avenue, Suite #101
 Daytona Beach, FL 32117

Emergency Telephone Number

Company Phone Number Phone: 800-549-2539
 Fax: 386-274-1798
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Colorless liquid

Physical State Liquid

Odor Strong Alcohol

Classification

Acute toxicity - Oral
 Specific target organ toxicity (single exposure)
 Flammable Liquids

Category 3
 Category 1
 Category 4

Signal Word

Danger

Hazard Statements

Harmful if swallowed
 Highly flammable liquid and vapor



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF SWALLOWED: Rinse mouth
 IN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Can generate small amounts of methanol under certain conditions. See section 10.

Unknown Acute Toxicity

6.0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Isopropyl Alcohol	67-63-0	36-38%
Glycol Ether PE	1569-02-4	28-32%
Glycol Ether PNP	1569-01-3	28-32%
EthyleneDiaminopropyl TriMethoxysilane	1760-24-3	1-2%

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash with soap and water. Consult a doctor if skin irritation is permanent.
Inhalation	Remove to fresh air. Get medical attention if discomfort persists.
Ingestion	If swallowed, rinse mouth with water. Do not induce vomiting. Get immediate medical attention.

Most important symptoms and effects

Symptoms	May cause skin and eye irritation. Prolonged exposure in poorly ventilated area may cause respiratory irritation. Product generates methyl alcohol, which may cause blindness and possibly death if swallowed.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat as methyl and isopropyl alcohol poisoning.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Carbon dioxide (CO₂). Water. Foam. Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Vapors are heavier than air and may spread along floors. Vapors may travel to source of ignition and flash back. Closed containers may explode due to buildup of pressure when exposed to extreme heat.

Hazardous Combustion Products Silicon dioxide. Carbon oxides. Traces of incompletely burned carbon compounds. Formaldehyde.

Sensitivity to Static Discharge Sensitive to static discharge.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area and fight fire from a safe distance.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required. Remove all sources of ignition.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Contain and collect with an inert absorbent and place into an appropriate container for disposal. Rinse area thoroughly. Clean up in accordance with all applicable regulations. Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Use spark-proof tools and explosion-proof equipment. Ground/bond container and receiving equipment. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Store away from sources of ignition. Store away from water or moisture.

Incompatible Materials Acids. Strong oxidizers. Alkalinity. Aldehydes. Halogens. Halogen compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol	STEL: 500 ppm TWA: 400 ppm	TWA: 400 ppm	IDLH: 400 ppm TWA: 400 ppm
Glycol Ether PE	STEL: 100ppm	TWA: 150ppm	IDLH: 150ppm TWA: 150ppm
Glycol Ether PNP	STEL: 100ppm	TWA: 150ppm	IDLH: 150ppm TWA: 150ppm
EthyleneDiaminopropyl TriMethoxysilane	STEL: 250ppm TWA: 200ppm	TWA: 200ppm	TWA: 200ppm

Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits. Eyewash stations. 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.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Chemical splash goggles or face shield.

Skin and Body Protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations

Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Strong Alcohol
Appearance	Colorless to pale yellow liquid	Odor Threshold	Not determined
Color	Not determined		
Property	Values	Remarks • Method	
pH	Not applicable (non-aqueous)		
Melting Point/Freezing Point	Not available		
Boiling Point/Boiling Range	82.5°C / 180.5°F		
Flash Point	11.7°C/53.0 °F – 12.8°C/55.0°F		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Flammable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	Not determined		
Vapor Density	Not determined		
Specific Gravity	0.79		
Water Solubility	Soluble in water		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Methanol forms when exposed to water or humid air.

Hazardous Polymerization Hazardous polymerization will not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Acids. Strong oxidizers. Alkalinity. Aldehydes. Halogens. Halogen compounds.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Avoid breathing vapors or mists.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl Alcohol	3600 mg/kg (Mouse)	12800 mg/kg (Rabbit)	16000ppm (8 hrs Rat)
EthyleneDiaminopropyl	2400 mg/kg (Rat)	No Data	1.49 mg/L (Rat)
TriMethoxysilane			
Glycol Ether PE	39000 mg/kg (Rat)	20000 mg/kg (Rabbit)	No Data
Glycol Ether PNP	5710 mg/kg (Rat)	12930 mg/kg (Rat)	16300ppm (4 hrs Rat)

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

STOT - single exposure Unknown.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity

<2.0% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Not considered immediately toxic to aquatic life.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Isopropyl Alcohol	No Data	28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	No Data	No Data

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
N/A	N/A

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
N/A			No Data	

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
N/A	N/A

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II

IATA

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II

IMDG

UN/ID No	UN1139
Proper Shipping Name	Coating solution
Hazard Class	3
Packing Group	II
Marine Pollutant	This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

TSCA	All ingredients are listed or exempt from listing on Chemical Substance Inventory
DSL	Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
N/A		N/A	

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Isopropyl Alcohol	67-63-0	36.0%	Fire Hazard/Acute Health Hazard

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Isopropyl Alcohol	N/A

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
N/A	N/A	N/A	N/A

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	3	0	Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	3	1	Not determined

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Disclaimer

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, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet