

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name DECON-AHOL WFI Aerosol
Revision date 11-24-2011
Version # 01
CAS # Mixture
MSDS Number VEL-104-AEROSOL
Product use Decontaminant.
Manufacturer/Supplier Veltek Associates, Inc.
15 Lee Blvd
MALVERN, PA 19355 USA
vai@sterile.com
Contact Person: All questions regarding chemical content should be directed to CareCHEM 24
Telephone: 610-644-8335
Emergency CARECHEM 24: 1-866-928-0789

2. Hazards Identification

Physical state Liquid.
Appearance Clear liquid.
Emergency overview WARNING
Flammable liquid and vapor. Causes eye irritation. Prolonged or repeated contact may dry skin and cause irritation. May cause central nervous system effects.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Causes eye irritation.
Skin Prolonged or repeated contact may dry skin and cause irritation. Defats the skin.
Inhalation Vapors may cause drowsiness and dizziness. May cause central nervous system effects.
Ingestion Swallowing or vomiting of the liquid may result in aspiration into the lungs. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.
Target organs Eyes. Skin. Respiratory system. Central nervous system.
Chronic effects None known.
Signs and symptoms Corneal damage. Conjunctivitis. Defatting of the skin. Rash. Irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. Drowsiness and dizziness.
Potential environmental effects The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Isopropyl alcohol	67-63-0	60-95
Nitrogen	7727-37-9	>1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation persists after washing.
Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation	Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.
Notes to physician	In case of shortness of breath, give oxygen. Keep victim warm.
General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

5. Fire Fighting Measures

Flammable properties	Aerosol containers can explode when heated, due to excessive pressure build-up. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.
Extinguishing media	
Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Protection of firefighters	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.
Protective equipment and precautions for firefighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Move containers from fire area if you can do it without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
Specific methods	In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

6. Accidental Release Measures

Personal precautions	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering. Use personal protection recommended in Section 8 of the MSDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Methods for cleaning up	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Dike the spilled material, where this is possible. Following product recovery, flush area with water. Absorb spillage with non-combustible, absorbent material. Small Spills: Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

The product is highly flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Do not handle or store near an open flame, heat or other sources of ignition. Do not smoke. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Use only in well-ventilated areas. Pressurized container: Do not pierce or burn, even after use. Avoid prolonged exposure. Use Personal Protective Equipment recommended in section 8 of the MSDS. Wash thoroughly after handling.

Storage

Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Store in cool place. Keep in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep this material away from food, drink and animal feed. Use care in handling/storage. Keep away from sources of ignition - No smoking.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	400 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Isopropyl alcohol (67-63-0)	PEL	980 mg/m3
		400 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	984 mg/m3
		400 ppm
	TWA	492 mg/m3
		200 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	1230 mg/m3
		500 ppm
	TWA	983 mg/m3
		400 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Isopropyl alcohol (67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm

Engineering controls

Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment. Provide easy access to water supply or an emergency shower.

Personal protective equipment

Eye / face protection Wear chemical goggles.

Skin protection	Wear appropriate chemical resistant clothing. Anti-static boots. Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Launder contaminated clothing before reuse. Remove and isolate contaminated clothing and shoes.

9. Physical & Chemical Properties

Appearance	Clear liquid.
Color	Clear.
Odor	Mild alcohol.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	7
Melting point	14 °F (-10 °C)
Freezing point	Not available.
Boiling point	180.5 °F (82.5 °C)
Flash point	64.9 °F (18.3 °C)
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	12
Flammability limits in air, lower, % by volume	2.5
Vapor pressure	4.41 Pa
Vapor density	1.6 (Air=1)
Specific gravity	0.84
Solubility (water)	Miscible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	750.2 °F (399 °C)
Decomposition temperature	Not available.
Viscosity	2.1 cP @ 25°C (Isopropyl alcohol)

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions. Risk of explosion. Risk of ignition.
Conditions to avoid	Heat, flames and sparks. Avoid high temperatures.
Incompatible materials	Strong oxidizing agents. Strong acids. Alkali metals. Aluminum.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Aldehydes.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components

Test Results

Isopropyl alcohol (67-63-0)

Acute Dermal LD50 Rabbit: 12800 mg/kg

Acute Inhalation LC50 Rat: 72.6 mg/l 4 hours

Acute Oral LD50 Rat: 4396 mg/kg

Acute effects

Vapors may cause drowsiness and dizziness. Causes eye irritation. Defats the skin. Swallowing or vomiting of the liquid may result in aspiration into the lungs. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure. Prolonged or repeated contact may dry skin and cause irritation. May cause central nervous system effects.

Local effects

Defats the skin.

Sensitization

Not a skin sensitizer.

Chronic effects

None known.

Carcinogenicity

None known.

ACGIH Carcinogens

Isopropyl alcohol (CAS 67-63-0)

A4 Not classifiable as a human carcinogen.

Mutagenicity

No data available.

Neurological effects

Not available.

Reproductive effects

Not classified.

Teratogenicity

Not available.

Symptoms and target organs

Symptoms can include irritation, redness, scratching of the cornea, and tearing. Vapors may cause drowsiness and dizziness.

12. Ecological Information

Ecotoxicological data

Components

Test Results

Isopropyl alcohol (67-63-0)

EC50 Daphnia magna: 13299 mg/l 48 hours

LC50 Bluegill (Lepomis macrochirus): > 1400 mg/l 96 hours

LC50 Fathead minnow (Pimephales promelas): 11130 mg/l 96 hours

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. The product is a volatile organic compound which has a photochemical ozone creation potential.

Persistence and degradability

No data available.

Bioaccumulation / Accumulation

No data available.

Partition coefficient (n-octanol/water)

Not available.

Mobility in environmental media

No data available.

13. Disposal Considerations

Waste codes

D001: Waste Flammable material with a flash point <140 °F

Disposal instructions

Dispose of this material and its container at hazardous or special waste collection point. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations.

Contaminated packaging

Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols
Hazard class	2.1
Labels required	2.1

Additional information:

Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols
Hazard class	2.1

Environmental hazards

Marine pollutant	No
Labels required	2.1

Additional information:

Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IMDG

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols
Hazard class	2.1

Environmental hazards

Marine pollutant	No
Labels required	2.1

Additional information:

Packaging exceptions	306
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TDG

Basic shipping requirements:

Proper shipping name	Aerosols
Hazard class	2.1
UN number	UN1950
Marine pollutant	No

Additional information:

Special provisions	N82
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Basic shipping requirements:

Labels required	2.1
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Additional information:

Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Isopropyl alcohol (CAS 67-63-0) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Isopropyl alcohol (CAS 67-63-0) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Isopropyl alcohol: 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR 370) Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification B5 - Flammable/Combustible
 D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Isopropyl alcohol (CAS 67-63-0) Listed.

US - Massachusetts RTK - Substance: Listed substance

Isopropyl alcohol (CAS 67-63-0) Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Isopropyl alcohol (CAS 67-63-0) 500 LBS

US - New Jersey RTK - Substances: Listed substance

Isopropyl alcohol (CAS 67-63-0) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Isopropyl alcohol (CAS 67-63-0)

Listed.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 1*
Flammability: 3
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 3
Instability: 0

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

Issue date 11-24-2011