Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol

MSDS ID: VEL-104-AEROSOL



Aerosol

Sterile Pharmaceutical Clean Room Formula

MATERIAL SAFETY DATA SHEET



Veltek Associates, Inc. 15 Lee Boulevard Malvern, PA 19355-1234 T: 610-644-8335 F: 610-644-8336

www.sterile.com

Material Name: DECON-AHOL® Sterile WFI Formula , Aerosol MSDS ID: VEL-104-AEROSOL

* * * Section 1 - Chemical Product and Company Identification * * *

Material Name DECON-AHOL® Sterile WFI Formula, Aerosol

Chemical Name USP Isopropyl Alcohol with USP Water for Injection

Product Use Decontaminant.

Manufacturer Information

 Veltek Associates, Inc.
 Phone: 610-644-8335

 15 Lee Blvd.
 Fax: 610-644-8336

Malvern, PA USA 19355-1234

(Emergency) FIRST RESPONDERS:

For Spill/Exposure Emergency Response Service in English, French, Spanish (and 23 other languages) telephone CARECHEM24 at +011 44 208 762 8322, for Arabic language +011 961 3 487 287 or Chinese +011 86 10 5100 3039.

* * * Section 2 - Hazards Identification * * *

Emergency Overview

Flammable liquid and vapor. Vapor may cause flash fire. Contents under pressure. This product may be irritating to the eyes, skin, gastrointestinal tract and respiratory system. May cause central nervous system depression.

Potential Health Effects: Eyes

This product may cause irritation to the eyes. Direct contact with aerosol propellant may cause frostbite.

Potential Health Effects: Skin

This product may cause irritation to the skin. Direct contact with aerosol propellant may cause frostbite.

Potential Health Effects: Ingestion

Ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision.

Potential Health Effects: Inhalation

May cause irritation to the nose and respiratory tract. Inhalation may cause central nervous system depression with symptoms such as weakness, dizziness, confusion and drowsiness. Aerosol propellant can cause asphyxiation by oxygen displacement.

Medical Conditions Aggravated by Exposure

Persons with pre-existing skin, eye and respiratory disorders may be aggravated by exposure to this product.

HMIS Ratings: Health: 1 Fire: 3 Physical Hazard: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

* * * Section 3 - Composition / Information on Ingredients * * *

CAS#	Component/CAS #	Percent
67-63-0	Isopropyl alcohol	60-100
7732-18-5	USP Water for Injection	15-40
7727-37-9	Nitrogen Propellant, 90-130 psi	>0.1

Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

This product is a controlled product according to Canada's Controlled Product Regulation.

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

MSDS ID: VEL-104-AEROSOL

First Aid: Skin

For skin contact flush with large amounts of water while removing contaminated clothing. Wash contaminated clothing before reuse. If irritation persists, get medical attention. If frostbite or freezing occurs, flush with lukewarm water. Do not use hot water! Get immediate medical attention.

First Aid: Ingestion

Do not induce vomiting. If ingestion of a large amount does occur, seek medical attention.

First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. Give artificial respiration if not breathing. Call a physician immediately.

First Aid: Notes to Physician

Do not induce vomiting. First, contact poison control center, treatment depends on volume of substance and time elapsed.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Severe fire hazard. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Vapor/air mixtures are explosive. Aerosol product may flash back. Pressurized containers may rupture or explode at elevated temperatures.

Hazardous Combustion Products

Oxides of carbon and low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, alcohol-resistant foam, carbon dioxide, water fog.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing including self contained breathing apparatus. Clear area of unprotected personnel. Move container from area if it can be done without risk. Cool containers with water spray until well after fire is out to prevent vapor build up, which could result in container rupture.

NFPA Ratings: Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

* * * Section 6 - Accidental Release Measures * * *

Containment Procedures

Stop the flow of material, if this is without risk. Reduce vapors with water spray. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Equipment must be grounded to prevent sparking.

Clean-Up Procedures

Absorb spill with inert material. Shovel material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Regulations vary. Consult local authorities before disposal.

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol

ol MSDS ID: VEL-104-AEROSOL

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Do not spray on an open flame or other ignition source. Contents under pressure. Do not puncture, crush or incinerate container in unapproved manner.

Storage Procedures

Keep the container in a cool, well-ventilated place. Eliminate all sources of ignition. Do not store, incinerate, or heat this material above 120°F (48°C). Keep away from incompatible materials.

* * * Section 8 - Exposure Controls / Personal Protection * * *

A: Component Exposure Limits

Isopropyl alcohol (67-63-0)

ACGIH: 200 ppm TWA

400 ppm STEL

OSHA (Final): 400 ppm TWA; 980 mg/m3 TWA OSHA (Vacated): 400 ppm TWA; 980 mg/m3 TWA

500 ppm STEL; 1225 mg/m3 STEL

NIOSH: 400 ppm TWA; 980 mg/m3 TWA

500 ppm STEL; 1225 mg/m3 STEL

Alberta: 200 ppm TWA; 492 mg/m3 TWA

400 ppm STEL; 984 mg/m3 STEL

British Columbia: 200 ppm TWA

400 ppm STEL

Manitoba: 200 ppm TWA

400 ppm STEL

New Brunswick: 400 ppm TWA; 983 mg/m3 TWA

500 ppm STEL; 1230 mg/m3 STEL

200 ppm TWA 400 ppm STEL

NW Territories: 400 ppm TWA; 983 mg/m3 TWA

500 ppm STEL; 1228 mg/m3 STEL

Skin notation

Nova Scotia: 200 ppm TWA

400 ppm STEL

Nunavut: 400 ppm TWA; 983 mg/m3 TWA

500 ppm STEL; 1228 mg/m3 STEL

Skin notation

Ontario: 200 ppm TWAEV

400 ppm STEV 400 ppm STEL 200 ppm TWA

Quebec: 400 ppm TWAEV; 985 mg/m3 TWAEV

500 ppm STEV; 1230 mg/m3 STEV

Saskatchewan: 200 ppm TWA

400 ppm STEL

Yukon: 400 ppm TWA; 980 mg/m3 TWA

500 ppm STEL; 1225 mg/m3 STEL

Skin notation

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol MSDS ID: VEL-104-AEROSOL

Nitrogen Propellant, 90-130 psi (7727-37-9)

ACGIH: Simple asphyxiant
Alberta: Simple asphyxiant
British Columbia: Simple asphyxiant
Manitoba: Simple Asphyxiant
New Brunswick: Simple Asphyxiant
Nova Scotia: Simple Asphyxiant
Ontario: Simple Asphyxiant
Quebec: Simple Asphyxiant
Yukon: Simple asphyxiant

Engineering Controls

Use local exhaust ventilation. Explosion proof exhaust ventilation should be used.

PERSONAL PROTECTIVE EQUIPMENT Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if splashing is possible).

Personal Protective Equipment: Skin

Chemical resistant gloves should be used at all times when handling this product.

Personal Protective Equipment: Respiratory

Use an organic vapor respirator for concentrations exceeding the Occupational Exposure Limit.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Clear, colorless liquid	Odor:	mild alcohol
Physical State:	liquid	pH:	7.0
Vapor Pressure:	4.4 kPa	Vapor Density:	1.6 (air=1)
Boiling Point:	180.5°F (82.5°C)	Melting Point:	Not available
Freezing Point:	14°F (-10°C)	Solubility (H2O):	Miscible
Flash Point:	64.9°F (18.3°C)	Evaporation Rate:	1.7 (Butyl Acetate=1)
Lower Flammability Limit (LFL):	2.5% (Isopropyl alcohol)	Viscosity:	2.1 cP @ 25°C (Isopropyl alcohol)
Upper Flammability Limit (UFL):	12% (Isopropyl alcohol)	Specific Gravity:	0.84
Auto Ignition:	750°F (399°C)	Water/Oil Dist Coeff	Not available
Octanol/H2O Coeff.:	log Kow 0.05 (Isopropyl alcohol)		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

Stable under normal conditions.

Chemical Stability: Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials.

Incompatibility

Acids, metals, oxidizing materials, combustible materials, halogens, peroxides, bases, metal salts.

Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Possibility of Hazardous Reactions

Will not occur.

Page 5 of 8 Issue Date: 03/05/10 Revision: 2.0000 Effective Date: 3/26/2010

MSDS ID: VEL-104-AEROSOL

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol

* * * Section 11 - Toxicological Information * * *

Acute Dose Effects

A: General Product Information

Excessive inhalation or ingestion of this material may cause central nervous system depression. Symptoms include headache, dizziness, nausea and loss of coordination. May cause irritation of the eyes, skin, gastrointestinal tract or respiratory system. Aerosol propellant can cause asphyxiation by oxygen displacement.

B: Component Analysis - LD50/LC50

Isopropyl alcohol (67-63-0)

Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg

USP Water for Injection (7732-18-5)

Oral LD50 Rat >90 mL/kg

Repeated Dose Effects

Repeated or prolonged exposure may cause irritation.

Carcinogenicity

A: General Product Information

No carcinogenicity data available for this product.

B: Component Carcinogenicity

Isopropyl alcohol (67-63-0)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable))

Target Organ Effects

Central Nervous System (CNS), skin, eyes, respiratory system.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Isopropyl alcohol (67-63-0)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	9640 mg/L	Flow-through
96 Hr LC50 Pimephales promelas	11130 mg/L	Static
96 Hr LC50 Lepomis macrochirus	>1400000 µg/L	
96 Hr EC50 Desmodesmus subspicatus	>1000 mg/L	
72 Hr EC50 Desmodesmus subspicatus	>1000 mg/L	
48 Hr EC50 Daphnia magna	13299 mg/L	

Persistence & Degradability

Isopropyl alcohol is expected to be rapidly degraded.

Bioaccumulation & Accumulation

Isopropyl alcohol estimated BCF is 3. It is not expected to bioaccumulate.

Mobility in Environmental Media

Isopropyl alcohol is highly mobile in soil.

MSDS ID: VEL-104-AEROSOL

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol

* * * Section 13 - Disposal Considerations * * *

US EPA Waste Number & Descriptions

A: General Product Information

No additional information available.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Do not puncture or incinerate pressurized containers. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. If discarded, this product is considered a RCRA ignitable waste, D001.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

* * * Section 14 - Transportation Information * * *

US DOT Information

Shipping Name: Aerosols, flammable UN/NA #: UN1950 Hazard Class: 2.1

Required Label(s): None

TDG Information

Shipping Name: Aerosols, flammable **UN/NA #:** UN1950 **Hazard Class:** 2.1

Required Label(s): None

* * * Section 15 - Regulatory Information * * *

US Federal Regulations

A: General Product Information

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

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Isopropyl alcohol (67-63-0)

SARA 313: 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

SARA 311/312 Acute Health: Yes Chronic Health: No Fire: Yes Pressure: Yes Reactive: No

State Regulations

A: General Product Information

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes	Yes
Nitrogen Propellant, 90-130 psi	7727-37-9	No	Yes	Yes	Yes	Yes	Yes

Page 7 of 8 Issue Date: 03/05/10 Revision: 2.0000 Effective Date: 3/26/2010

Material Name: DECON-AHOL® Sterile WFI Formula, Aerosol MSDS ID: VEL-104-AEROSOL

Canadian WHMIS Information

A: General Product Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by CPR.

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component/CAS #	CAS#	Minimum Concentration
Isopropyl alcohol	67-63-0	1 %

WHMIS Classification:

B5 - Flammable Aerosol

D2B - Toxic Material

Additional Regulatory Information

A: General Product Information

No additional information available.

B: Component Analysis - Inventory

Component/CAS #	CAS#	TSCA	CAN	EEC
Isopropyl alcohol	67-63-0	Yes	DSL	EINECS
USP Water for Injection	7732-18-5	Yes	DSL	EINECS
Nitrogen Propellant, 90-130 psi	7727-37-9	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

Other Information

No additional information available.

MSDS History

Revision 2.0000, Regulatory update: 05 March 2010. Revision 1.0000, New MSDS: 11 January 2005.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; CFR = Code of Federal Regulations; CNS = Central Nervous System; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; HEPA = High Efficiency Particulate Air filters; IARC = International Agency for Research on Cancer; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; RCRA = Resource Conservation and Recovery Act; SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit; TDG = Transport Dangerous Goods TSCA = Toxic Substance Control Act; TWA = Time Weighted Average; WHMIS = Workplace Hazardous Materials Information System.

End of Sheet VEL-104-AEROSOL