SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** New **Revision Number** 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Aplicare® Skin Protectant Prep Pads**

Other means of identification

Product Code(s) P-1010, P-1010-8S

Recommended use of the chemical and restrictions on use

Recommended Use Skin protectant prep pads

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Aplicare Inc.
Supplier Address 550 Research Parkway
Meriden, CT 06450

Supplier Phone Number Phone: 203-630-0500

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Causes eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
Highly flammable liquid and vapor



Appearance Clear, colorless liquid absorbed into white pads **Physical State** Thin liquid absorbed into pads **Odor** Pungent alcohol

Precautionary Statements - Prevention
Wash hands and face thoroughly after handling.
Avoid breathing vapors.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye protection such as safety glasses.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed.
Ground/bond container and receiving equipment
Use explosion-proof electrical/ ventilating/ lighting/ equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical attention.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor if you feel unwell.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Keep cool.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
21% of the mixture consists of ingredient(s) of unknown toxicity

Other information
Prolonged or repeated contact may dry skin and cause irritation

Interactions with Other Chemicals
Can react with strong oxidizers, inorganic acids, and halogens.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Isopropyl alcohol	67-63-0	60 - 80	*
n-Butyl alcohol	71-36-3	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen.

Ingestion Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Dry chemical. Carbon dioxide (CO2). Foam.

Unsuitable extinguishing media
CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
No information available.

Explosion Data
Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. See section 8 for more information. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other Information Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental Precautions

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for Containment A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible Products Strong oxidizers, inorganic acids, and halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m^3	IDLH: 2000 ppm 10% LEL TWA: 980 mg/m^3 TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m^3
n-Butyl alcohol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m^3	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m^3

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection None required for consumer use. If splashes are likely to occur:. Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid absorbed into pads		
Appearance	Clear, colorless liquid absorbed into pads	**Odor**	Pungent alcohol
Color	Colorless liquid - white pads	**Odor Threshold**	No information available

Property	**Values**	**Remarks/ Method**
pH	No data available	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	< 23°C (liquid)	CC (closed cup)
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~0.85 (liquid)	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
Can react with strong oxidizers, inorganic acids, and halogens.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizers, inorganic acids, and halogens.

Hazardous Decomposition Products
Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye Contact Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. May cause redness, itching, and pain. May cause temporary eye irritation.

Skin Contact Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl alcohol 67-63-0	4.4 g/kg (Rat)	12.8 g/kg (Rabbit)	16000 ppm (Rat, 8 h)
n-Butyl alcohol 71-36-3	-	-	8000 ppm (Rat, 4 h)

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes.

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

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol 67-63-0		Group 3		X

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Contains a known or suspected carcinogen.

Target Organ Effects Eyes. Central Nervous System (CNS). Respiratory system. Skin. Blood. Kidney. Liver. Spleen. Systemic Toxicity.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
3.4 g/kg
ATEmix (dermal)
11.7 g/kg (ATE)
ATEmix (inhalation-vapor)
51.00 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Isopropyl alcohol 67-63-0	96h EC50: > 1000 mg/L (Desmodesmus subspicatus) 72h EC50: > 1000 mg/L (Desmodesmus subspicatus)	96h LC50: > 1400000 µg/L (Lepomis macrochirus) 96h LC50: = 11130 mg/L (Pimephales promelas) 96h LC50: = 9640 mg/L (Pimephales promelas)		48h EC50: = 13299 mg/L
n-Butyl alcohol 71-36-3	72h EC50: > 500 mg/L (Desmodesmus subspicatus) 96h EC50: > 500 mg/L (Desmodesmus subspicatus)	96h LC50: 1730 - 1910 mg/L (Pimephales promelas) 96h LC50: = 1910000 µg/L (Pimephales promelas) 96h LC50: 100000 - 500000 µg/L (Lepomis macrochirus) 96h LC50: = 1740 mg/L (Pimephales promelas)	EC50 = 2041.4 mg/L 5 min EC50 = 2186 mg/L 30 min EC50 = 3980 mg/L 24 h EC50 = 4400 mg/L 17 h	48h EC50: = 1983 mg/L 48h EC50: 1897 - 2072 mg/L

Persistence and Degradability

No information available.

Bioaccumulation

Chemical Name	Log Pow
Isopropyl alcohol 67-63-0	0.05
n-Butyl alcohol 71-36-3	0.785

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT Limited quantity.

TDG

UN-No. UN1993
Proper Shipping Name FLAMMABLE LIQUID, N.O.S.
Hazard Class 3
Packing Group II
Description UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL, N-BUTYL ALCOHOL), 3, II

ICAO

UN-No.	UN1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Hazard Class	3
Packing Group	II
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL, N-BUTYL ALCOHOL), 3, II

IATA

UN-No.	UN1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Hazard Class	3
Packing Group	II
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL, N-BUTYL ALCOHOL), 3, II

IMDG/IMO

UN-No.	UN1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Hazard Class	3
Packing Group	II
EmS No.	F-E, S-E
Description	UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL, N-BUTYL ALCOHOL), 3, II, (23.3°C C.C.)

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Isopropyl alcohol	67-63-0	60 - 80	1.0
n-Butyl alcohol	71-36-3	1 - 5	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
n-Butyl alcohol 71-36-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Isopropyl alcohol 67-63-0	X	X	X	X	
n-Butyl alcohol 71-36-3	X	X	X	X	

International Regulations

Canada
WHMIS Hazard Class
B2 - Flammable liquid
D2B - Toxic materials



16. OTHER INFORMATION

NFPA	**Health Hazards**	2	**Flammability**	3	**Instability**	0	**Physical and Chemical Hazards** -
HMIS	**Health Hazards**	2	**Flammability**	3	**Physical Hazard**	0	**Personal Protection** A

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date New

Revision Note New

Reference CLX0053/D010

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 a 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

ChloraPrep® Solutions
Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : ChloraPrep® Solutions

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Antimicrobial

1.3. Details of the supplier of the safety data sheet

CareFusion
75 N. Fairway Drive
Vernon Hills, IL 60061
T 800-523-0502 - F 855-329-6985

1.4. Emergency telephone number

Emergency number : Chemtrec 1 800 424 9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
Eye Irrit. 2A H319
STOT SE 3 H336
STOT SE 3 H335

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02 GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :
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
P261 - Avoid breathing dust/fume/gas/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/face protection
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position 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
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention
P370+P378 - In case of fire: Use ... for extinction
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to ...

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

ChloraPrep® Clear

Name	Product identifier	%	GHS-US classification
Isopropyl alcohol	(CAS No) 67-63-0	70	Flam. Liq. 2, H225
Chlorhexidine digluconate	(CAS No) 18472-51-0	2	Acute Tox. 4 (Oral), H302

ChloraPrep® Teal Green

Name	Product identifier	%	GHS-US classification
Isopropyl alcohol	(CAS No) 67-63-0	70	Flam. Liq. 2, H225
Chlorhexidine digluconate	(CAS No) 18472-51-0	2	Acute Tox. 4 (Oral), H302
C.I. Food Green 3	(CAS No) 2353-45-9	0 - 0.1	Muta. 2, H341

ChloraPrep® Hi-Lite Orange

Name	Product identifier	%	GHS-US classification
Isopropyl alcohol	(CAS No) 67-63-0	70	Flam. Liq. 2, H225
Chlorhexidine digluconate	(CAS No) 18472-51-0	2	Acute Tox. 4 (Oral), H302
FD and C Yellow No. 6	(CAS No) 2783-94-0	0 - 0.1	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If symptoms of exposure develop, move to fresh air. Seek medical attention if symptoms persist.

First-aid measures after skin contact : Wash material off the skin with copious amounts of water. If redness or a burning sensation develops, seek medical attention and discontinue use.

First-aid measures after eye contact : Flush with copious amounts of water. After initial flushing remove any contact lenses and continue flushing for at least 15minutes. Have eyes examined and treated by medical personnel immediately.

First-aid measures after ingestion : Give individual one to two glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness and drowsiness.

Symptoms/injuries after skin contact : May cause irritation, drying, defatting of the skin. Prolonged contact may cause dermatitis.

Symptoms/injuries after eye contact : Contact may cause severe irritation with redness, tearing and pain with possible eye damage.

Symptoms/injuries after ingestion : Ingestion may cause mucous membrane and gastrointestinal irritation, abdominal pain, nausea, vomiting, dizziness and drowsiness.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog, alcohol-resistant foam, carbon dioxide or dry chemical. Water spray can be used to cool exposed containers and structures, dilute spills and disperse flammable vapors.

Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor. Ampoules may explode if exposed to extreme heat or flame. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back.

Explosion hazard : None known.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No special measures required.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.

Methods for cleaning up : Wear skin, eye and respiratory protection during cleanup.For small spills, wipe or mop up and rinse to sewer serviced by a wastewater treatment facility. For large spills, eliminate sources of ignition and ventilate spill area. Soak up liquid with inert absorbent and collect into a suitable waste container. Wash residue from spill area with water and flush to sewer serviced by a wastewater treatment facility if permitted.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid prolonged exposure (ingestion, inhalation, or skin contact). Avoid breathing vapors. Use in well-ventilated areas. Keep product away from heat, sparks and flames.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry, well-ventilated area away from incompatible chemicals and all sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isopropyl alcohol (67-63-0)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	400 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm

8.2. Exposure controls

Appropriate engineering controls : Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Hand protection : Latex rubber for limited contact. Butyl rubber or nitrile recommended for prolonged contact.

Eye protection : Safety glasses or goggles recommended if eye contact is possible.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : If the exposure limits are exceeded a NIOSH/EN approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear in product; when activated, clear orange, teal

Color	:	Clear, orange, or teal
Odor	:	Odorless
Odor threshold	:	No data available
pH	:	7 - 7.5
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	67 °F
Self ignition temperature	:	2 - 12.7
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Specific gravity	:	0.88
Solubility	:	Water: Complete
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

VOC content : 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

Extreme heat, sparks or flame.

10.5. Incompatible materials

Oxidizing materials

10.6. Hazardous decomposition products

Carbon dioxide, carbon monoxide, nitrogen oxides, ammonia, chlorine compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Isopropyl alcohol (67-63-0)	
LD50 oral rat	4396 mg/kg
LD50 dermal rabbit	12800 mg/kg
LC50 inhalation rat (ppm)	16000 ppm (Exposure time: 8 h)

Chlorhexidine digluconate (18472-51-0)	
ATE (oral)	500.000 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation	:	Causes serious eye irritation.
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

C.I. Food Green 3 (2353-45-9)	
IARC group	3 - Not classifiable

FD and C Yellow No. 6 (2783-94-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	May cause drowsiness or dizziness. May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Isopropyl alcohol (67-63-0)	
LC50 fishes 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	> 1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)
LC50 fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 other aquatic organisms 2	> 1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Isopropyl alcohol (67-63-0)	
Log Pow	0.05 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

Transport document description	:	UN1219 Isopropanol Solution, 3, II
UN-No.(DOT)	:	1219
DOT NA no.	:	UN1219
DOT Proper Shipping Name	:	Isopropanol Solution
Department of Transportation (DOT) Hazard Classes	:	3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT)	:	3 - Flammable liquid



Packing group (DOT)	:	II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	:	IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	4b;150
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	202
DOT Packaging Bulk (49 CFR 173.xxx)	:	242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

SECTION 15: Regulatory information

15.1. US Federal regulations

Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 % (only if manufactured by the strong acid process, no supplier notification)

C.I. Food Green 3 (2353-45-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Chlorhexidine digluconate (18472-51-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

FD and C Yellow No. 6 (2783-94-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

Isopropyl alcohol (67-63-0)
U.S. - Massachusetts - Right To Know List U.S. - Minnesota - Hazardous Substance List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis

STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

CareFusion

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Chloraprep 2.0%
Formula: Mixture
MSDS Date of Preparation: February 05, 2010

CareFusion
11400 Tomahawk Creek Pkwy
Leawood, KS 66211
PHONE: (800) 523-0502 FAX: (913) 451-8509

EMERGENCY CONTACT: **CHEMTREC 1-800-424-9300 Commercial #** 1 (703) 741-6009

- This number to be used only for spills, leaks, fire, exposure or accidents. Please direct all other inquiries to CareFusion Customer Service at (800) 523-0502.

2. HAZARDS IDENTIFICATION

This product consists of a 70% isopropanol and 2% chlorhexidine gluconate solution.

EMERGENCY OVERVIEW

WARNING!

Flammable Liquid and Vapor. Causes severe eye irritation. May cause skin irritation. Inhalation of vapors may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Isopropanol (Isopropyl Alcohol)	67-63-0	70%
Chlorhexidine Gluconate	18472-51-0	2%

4. FIRST AID MEASURES

Skin: Wash material off the skin with copious amounts of water. If redness or a burning sensation develops, seek medical attention and discontinue use.
Eyes: Flush with copious amounts of water. After initial flushing remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel immediately.
Ingestion: Give individual one to two glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person)

Inhalation: If symptoms of exposure develop, move to fresh air. Seek medical attention if symptoms persist.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol-resistant foam, carbon dioxide or dry chemical. Water spray can be used to cool exposed containers and structures, dilute spills and disperse flammable vapors.
Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.
Unusual Fire & Explosion Hazards: Ampoules may explode if exposed to extreme heat or flame. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back.

6. ACCIDENTAL RELEASE MEASURES

For small spills, wipe or mop up and rinse to sewer serviced by a wastewater treatment facility. For large spills, eliminate sources of ignition and ventilate spill area. Wear skin, eye and respiratory protection during cleanup (See Section 8). Soak up liquid with inert absorbent and collect into a suitable waste container. Wash residue from spill area with water and flush to sewer serviced by a wastewater treatment facility if permitted.

7. HANDLING AND STORAGE

Avoid prolonged exposure (ingestion, inhalation, or skin). Avoid breathing vapors. Use in well ventilated areas. Keep product away from heat, sparks and flames.

Store in a cool, dry, well-ventilated area away from incompatible chemicals and all sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Isopropanol (Isopropyl Alcohol)	400 ppm PEL-TWA 200 ppm TLV-TWA 400 ppm TWA-STEL
Chlorhexidine Gluconate	None Established

Eye Protection: Avoid eye contact. Safety glasses or goggles recommended if eye contact is possible.
Gloves: Latex rubber for limited contact. Butyl rubber or nitrile recommended for prolonged contact.
Respiratory Protection: If the exposure limits are exceeded a NIOSH approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.
Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	N/A	**Melting Point**:	Unknown
Vapor Pressure:	N/A	**Specific Gravity**:	0.880
Vapor Density:	N/A	**% Volatile by volume**:	100
Water Solubility:	Complete	**Evaporation Rate**:	Unknown
pH	7.0 – 7.5	**Flash point**:	67° F TCC
Flammable Limits:	**LEL:** 2.0% (isopropanol)	**UEL**:	12.7% (isopropanol)

Appearance & Odor: Product is a liquid with an alcohol odor as applied.

10. STABILITY AND REACTIVITY

Stability: Stable
Incompatibility: Oxidizing materials
Hazardous polymerization: Will not occur.
Hazardous decomposition products: Carbon dioxide, carbon monoxide, nitrogen oxides, ammonia, chlorine compounds.
Conditions to avoid: Extreme heat, sparks or flame.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:
Ingestion: Ingestion may cause mucous membrane and gastrointestinal irritation, abdominal pain, nausea, vomiting, dizziness and drowsiness.
Inhalation: Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness and drowsiness.
Eye: Contact may cause severe irritation with redness, tearing and pain with possible eye damage.
Skin: May cause irritation, drying, defatting of the skin. Prolonged contact may cause dermatitis.
Chronic: None known.
Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.
Medical Conditions Aggravated by Exposure: Employees with pre-existing skin, kidney and respiratory diseases may be at increased risk from exposure.

Acute Toxicity Values:
Isopropanol: Oral Rat LD50 5,045 mg/kg; Inhalation Rat LC50 16,000 ppm/8 hour; Skin Rabbit LD50 12,800 mg/kg
Chlorhexidine Gluconate: Oral Rat LD50 2,000 mg/kg

12. ECOLOGICAL INFORMATION

Isopropanol: The LC50/96-hour values for fish are over 100 mg/l.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

14. TRANSPORT INFORMATION

DOT Information

Proper Shipping Name: Isopropanol Solution
Hazard Class: 3, PG II
UN Number: UN1219
Exemption for US Ground Transport: Consumer Commodity, ORM-D
Exemption for US Air Transport: Consumer Commodity, ORM-D-AIR
Small Quantity Exception: 49CFR173.4

IMO Information

Proper Shipping Name: Isopropanol Solution
Hazard Class: 3, PG II
UN Number: UN1219
Limited Quantity: 1 L/inner receptacle. Limit gross weight - 30 kg/package

IATA Information

Proper Shipping Name: Isopropanol Solution
Hazard Class: 3, PG II
UN Number: UN1219
Packing Instruction: 305
Limited Quantity Packing Instruction: Y305
Alternate Shipping Description: Consumer Commodity, 9, ID8000
Excepted Small Quantities of Dangerous Goods: Class 3, PG II inner limit 30 mL, Outer Package Limit 500 mL

15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Fire Hazard.
SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

16. OTHER INFORMATION

HMIS Rating: Health = 2 Fire = 3 Reactivity = 0

ACGIH:	American Conference of Governmental Industrial Hygienists
IARC:	International Agency for Research on Cancer
OSHA:	Occupational Safety and Health Administration
NTP:	National Toxicology Program
PEL:	Permissible exposure Level (OSHA)
TLV:	Threshold Limit Value (ACGIH)
TWA:	Time Weighted Average over 8 hours
TCC:	Tagged Closed Cup