MATERIAL SAFETY DATA SHEET

Aplicare Povidone-Iodine Ointment

IDENTITY (As Used on Label and List)

Section I

Manufacture's Name Aplicare, Inc.	Emergency Telephone Number Chemtrek (800) 424-9300
Address (Number, Street, City, and ZIP Code) 550 Research Parkway	Telephone Number for Information 203-630-0500
Meriden, CT 06450	Date Prepared November 6, 2009
	Signature of Preparer (optional)

Section II -- Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Names(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Iodine (CAS #7553-56-2)	0.1 ppm			1

Section III -- Physical/Chemical Characteristics

Boiling Point	Unknown	Specific Gravity (Water = 1)	2.4
Vapor Pressure (mm Hg.)	Unknown	Melting Point	Unknown
Vapor Density (AIR = 1)	Unknown	Evaporation Rate (Butyl Acetate = 1)	Less than 1

Solubility in Water
Soluble.

Appearance and Odor
A dark brown ointment with a faint iodine odor.

Section IV -- Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Unknown	Non-flammable	N/A	N/A

Extinguishing Media
Water, carbon dioxide, powder

Special Fire Fighting Procedures
None specified

Unusual Fire and Explosion Hazards
None

Section V -- Reactivity Data

Stability	Unstable		Conditions to Avoid: None known.
	Stable	X	

Incompatibility (Materials to Avoid)
The elemental iodine is corrosive to some metals (i.e. iron), but is not corrosive to stainless steel.

Hazardous Decomposition of Byproducts
N/A

Hazardous Polymer-ization	May Occur		Conditions to Avoid: None known.
	Will Not Occur	X	

Section VI -- Health Hazard Data

Route(s) of Entry:	Eyes?	Inhalation?	Skin?	Ingestion?
	X	N/A	X	Unlikely

Health Hazards (Acute/Chronic)
May cause irritation to eyes.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	N/A	N/A	N/A

Signs and Symptoms of Exposure
May cause irritation of eyes but should not cause irritation of respiratory tract or skin.
May be harmful if swallowed.

Medical Conditions
Generally Aggravated by Exposure: Unknown

Emergency and First Aid Procedures
Eyes: Flush with water for 15 minutes and seek physician if irritation persists.
Ingestion: Give a suspension of starch or flour in water, induce emesis and call a physician.

Section VII -- Precautions for Safe Handling and Use

Steps to Be taken in Case Materials is Released or Spilled
It is unlikely that this product, when spilled, will cause a problem; packaged as individual packets containing 1 gram of ointment.

Waste Disposal Method
Any solution that is spilled may be wiped up with towelling and disposed of with garbage.

Precautions to Be taken in Handling and Storing
Avoid storing in excessive heat (Greater than 104°F).

Other Precautions
None.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type)		No personal protective equipment needed.		
Ventilation	Local Exhaust	X	Special	N/A
	Mechanical (General)	N/A	Other	N/A
Protective Gloves		If desired	Eye Protection:	If desired.
Other Protective Clothing or Equipment		None required		
Work/Hygienic Practices		Normal		

MATERIAL SAFETY DATA SHEET

Aplicare Skin Protectant Prep Pad

IDENTITY (As Used on Label and List)

Section I

Manufacture's Name Aplicare, Inc.	Emergency Telephone Number Chemtrek (800) 424-9300
Address (Number, Street, City, and ZIP Code) 550 Research Parkway	Telephone Number for Information 203-630-0500
Meriden, CT 06450	Date Prepared June 9, 2010
	Signature of Preparer (optional)

Section II -- Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Names(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Isopropyl Alcohol (CAS #67-63-0)	400 ppm			76.4
n-Butyl Alcohol (CAS #71-36-3)	100 ppm			6.1

Section III -- Physical/Chemical Characteristics

Boiling Point (Isopropanol)	176°F	Specific Gravity (Water = 1)	0.852
Vapor Pressure (mm Hg.) (Isopropanol)	90	Melting Point	N/A
Vapor Density (AIR = 1) (Isopropanol)	2.1	Evaporation Rate (Butyl Acetate = 1)	Unknown

Solubility in Water
Soluble.

Appearance and Odor
A clear, colorless liquid with a pungent, alcohol odor.

Section IV -- Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
<74 F (Closed cup)		2	12

Extinguishing Media
Dry chemical or alcohol-type foam

Special Fire Fighting Procedures
Use water to cool fire-exposed area. Water spray may be ineffective in fighting fires.

Unusual Fire and Explosion Hazards
Respiratory protection required for fire fighting personnel. Stay upwind if possible.
Vapors may form, travel and ignite.

Section V -- Reactivity Data

Stability	Unstable		Conditions to Avoid None known.
	Stable	X	

Incompatibility (Materials to Avoid)
Concentrated nitric and sulfuric acids, strong oxidizers, aldehydes and halogen compounds.

Hazardous Decomposition of Byproducts
Burning may produce carbon monoxide and carbon dioxide.

Hazardous Polymer-ization	May Occur		Conditions to Avoid None known.
	Will Not Occur	X	

Section VI -- Health Hazard Data

Route(s) of Entry:	Eyes?	Inhalation?	Skin?	Ingestion?
	X	X	X	Unlikely

Health Hazards (Acute/Chronic)
Can be irritating to eyes, nose and throat. May cause dermatitis in some individuals after prolonged exposure.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?

Signs and Symptoms of Exposure
Irritation of eyes, nose and throat. May cause stinging of eyes and conjunctivitis.

Medical Conditions
Generally Aggravated by Exposure: Unknown

Emergency and First Aid Procedures
Eyes: Flush with plenty of water and see a doctor.
Ingestion: Induce vomiting.

Section VII -- Precautions for Safe Handling and Use

Steps to Be taken in Case Materials is Released or Spilled
It is unlikely that this product, when spilled, will cause a problem; packaged as individual packets containing 1 - 2 mL of solution.

Waste Disposal Method
Any solution that is spilled may be wiped up with towelling and disposed of with garbage.

Precautions to Be taken in Handling and Storing
Avoid storing in excessive heat (Greater than 104°F).

Other Precautions
None.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type)		No personal protective equipment needed.		
Ventilation	Local Exhaust	X	Special	N/A
	Mechanical (General)	N/A	Other	N/A
Protective Gloves		If desired	Eye Protection:	If desired.
Other Protective Clothing or Equipment		None required		
Work/Hygienic Practices		Normal		

Hospira

MATERIAL SAFETY DATA SHEET

Product Name: Lidocaine Hydrochloride Injection

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer Name And Address	Hospira Inc. 275 North Field Drive Lake Forest, Illinois USA 60045
Emergency Telephone	CHEMTREC: North America: 800-424-9300; International 1-703-527-3887; Australia (02) 8014 4880
Hospira, Inc., Non-Emergency	224-212-2000
Product Name	Lidocaine Hydrochloride Injection
Synonyms	Acetamide, 2-(diethylamino)-N-(2,6-dimethylphenyl)-monohydrochloride; 2',6'-Acetoxylidide, 2-(diethylamino)-, hydrochloride

2. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredient Name	Lidocaine Hydrochloride
Chemical Formula	$C_{14}H_{22}N_2O \cdot HCl$
Preparation	Non-hazardous ingredients include Water for Injection; some preparation may contain 7.5% dextrose. Hazardous ingredients present at less than 1% may include sodium chloride; sodium hydroxide and/or hydrochloric acid are used to adjust the pH. Multiple-dose vials contain 0.1% of methylparaben added as a preservative.

Component	Approximate Percent by Weight	CAS Number	RTECS Number
Lidocaine Hydrochloride	≤ 5	73-78-9	AN7600000

3. HAZARD INFORMATION

Carcinogen List

Substance	IARC	NTP	OSHA
Lidocaine Hydrochloride	Not Listed	Not Listed	Not Listed

Emergency Overview	Lidocaine Hydrochloride Injection is a solution containing lidocaine hydrochloride, an amide-type local anesthetic used as a local anesthetic for pain management. In the workplace, this product should be considered possibly irritating to the skin, eyes and respiratory tract. Possible target organs include the nervous system and cardiovascular system.
Occupational Exposure Potential	Information on the absorption of this product via inhalation or skin contact is not available. Published reports have indicated that similar local anesthetics have some potential to be absorbed through intact skin. Avoid liquid aerosol generation and skin contact.
Signs and Symptoms	Inadvertent contact with this product may cause irritation, followed by numbness. Ingestion may cause numbness of the tongue and anesthetic effects on the stomach. In clinical use, this product produces numbness when injected. In normal clinical use, adverse effects may include fever, headaches, agitation, tingling of extremities, general hypotension, bradycardia, dizziness,

nausea, vomiting, anemia, back pain, post-operative pain and fetal distress. Systemic absorption can produce central nervous system (CNS) stimulation and/or CNS depression. CNS depression may progress to coma and cardio-respiratory arrest. Signs of cardiovascular toxicity may include changes in cardiac conduction, excitability, refractoriness, contractility, and peripheral vascular resistance. Toxic blood levels may cause atrioventricular block, ventricular arrhythmias, cardiac arrest, and sometimes death. In addition, decreased cardiac output and arterial blood pressure may occur. Allergic-type reactions are rare but may occur due to sensitivity to the local anesthetic or to other formulation ingredients. These reactions are characterized by signs such as urticaria, pruritus, erythema, angioneurotic edema (including laryngeal edema), tachycardia, sneezing, nausea, vomiting, dizziness, syncope, excessive sweating, elevated temperature, and possibly, anaphylactic-like symptoms (including severe hypotension). Cross sensitivity with other amide-type local anesthetics has been reported.

Medical Conditions Aggravated by Exposure	Pre-existing hypersensitivity to lidocaine or related amide-type anesthetics. Pre-existing nervous system or cardiovascular ailments.

4. FIRST AID MEASURES

Eye contact	Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
Skin contact	Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
Inhalation	Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
Ingestion	Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

5. FIRE FIGHTING MEASURES

Flammability	None anticipated from this aqueous product.
Fire & Explosion Hazard	None anticipated from this aqueous product.
Extinguishing media	As with any fire, use extinguishing media appropriate for primary cause of fire.
Special Fire Fighting Procedures	No special provisions required beyond normal fire fighting equipment such as flame and chemical resistant clothing and self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Cleanup and Disposal	Isolate area around spill. Put on suitable protective clothing and equipment as specified by site spill procedures. Absorb any liquid with suitable material and clean affected area with soap and water. Dispose of spill materials according to the applicable federal, state, or local regulations.

7. HANDLING AND STORAGE

Handling	No special handling required under conditions of normal product use.
Storage	No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.
Special Precautions	No special precautions required for hazard control.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

	Exposure limits				
Component	**Type**	**mg/m3**	**ppm**	**µg/m3**	**Note**
Lidocaine Hydrochloride	Not Applicable	N/A	N/A	N/A	None Established

Respiratory protection	Respiratory protection is normally not needed during intended product use. However, if the generation of aerosols is likely, and engineering controls are not considered adequate to control potential airborne exposures, the use of an approved air-purifying respirator with a HEPA cartridge (N95 or equivalent) is recommended under conditions where airborne aerosol concentrations are not expected to be excessive. For uncontrolled release events, or if exposure levels are not known, provide respirators that offer a high protection factor such as a powered air purifying respirator or supplied air. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions require respirator use. Personnel who wear respirators should be fit tested and approved for respirator use as required.
Skin protection	If skin contact with the product formulation is likely, the use of latex or nitrile gloves is recommended.
Eye protection	Eye protection is normally not required during intended product use. However, if eye contact is likely to occur, the use of chemical safety goggles (as a minimum) is recommended.
Engineering Controls	Engineering controls are normally not needed during the normal use of this product.

9. PHYSICAL/CHEMICAL PROPERTIES

Appearance/Physical State	Liquid
Color	Clear, colorless
Odor	Not determined
Odor Threshold:	NA
pH:	Between 5.0 and 7.0
Melting point/Freezing point:	NA
Initial Boiling Point/Boiling Point Range:	NA
Evaporation Rate:	NA
Flammability (solid, gas):	NA
Upper/Lower Flammability or Explosive Limits:	NA
Vapor Pressure:	NA

Vapor Density:	NA
Specific Gravity:	NA
Solubility:	Very soluble in water and in alcohol; soluble in chloroform; insoluble in ether.
Partition coefficient: n-octanol/water:	NA
Auto-ignition temperature:	NA
Decomposition temperature:	NA

10. STABILITY AND REACTIVITY

Reactivity	Not determined.
Chemical Stability	Stable under standard use and storage conditions.
Hazardous Reactions	Not determined
Conditions to avoid	Not determined
Incompatibilities	Strongly alkaline conditions. Methyl vinyl ether; zinc.
Hazardous decomposition products	Not determined. During thermal decomposition, it may be possible to generate irritating vapors and/or toxic fumes of carbon oxides and nitrogen oxides (NOx), and hydrogen chloride.
Hazardous Polymerization	Not anticipated to occur with this product.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Not determined for the product formulation. Information for the ingredients is as follows:

Ingredient(s)	Percent	Test Type	Route of Administration	Value	Units	Species
Lidocaine Hydrochloride	100	LD50	Oral	220 292	mg/kg mg/kg	Mouse Mouse
Lidocaine Hydrochloride	100	LD50	Intraperitoneal	122 63	mg/kg mg/kg	Rat Mouse
Lidocaine Hydrochloride	100	LD50	Intravenous	21 15 25.6 24.5	mg/kg mg/kg mg/kg mg/kg	Rat Mouse Rabbit Guinea Pig
Lidocaine Hydrochloride	100	LD50	Intratracheal	28	mg/kg	Rabbit

Aspiration Hazard	None anticipated from normal handling of this product.
Dermal Irritation/Corrosion	None anticipated from normal handling of this product. However, inadvertent contact with this product may be irritating to broken skin and mucous membranes, and may produce numbness.
Ocular Irritation/Corrosion	None anticipated from normal handling of this product. However, inadvertent contact of this product with eyes may produce irritation, numbness, and blurred vision.

Dermal or Respiratory Sensitization	None anticipated from normal handling of this product. However, inadvertent contact of this product with the respiratory system may produce irritation and numbness. Rarely, allergic-type reactions have been reported during the clinical use of lidocaine.
Reproductive Effects	In a fertility study in rats, lidocaine given subcutaneously at a dosage of 30 mg/kg (180 mg/m2) to mating pairs did not produce alterations in fertility or general reproductive performance of rats. Subcutaneous administration of lidocaine to pregnant rats at a dosage of to 50 mg/kg did not produce evidence of harm to the fetus. In rabbits, there was no evidence of harm to the fetus at a subcutaneous dosage of 5 mg/kg. Treatment of rabbits with a subcutaneous dosage of 25 mg/kg produced evidence of maternal toxicity and evidence of delayed fetal development, including a non-significant decrease in fetal weight and an increase in minor skeletal anomalies. The effect of lidocaine on post-natal development was evaluated in rats by treating pregnant female rats daily subcutaneously at dosages of 2, 10, and 50 mg/kg from day 15 of pregnancy and up to 20 days post partum. No signs of adverse effects were seen either in dams or in the pups up to and including the dose of 10 mg/kg; however, the number of surviving pups was reduced at 50 mg/kg, both at birth and the duration of lactation period; this effect is most likely secondary to maternal toxicity. A second study evaluated the effects of lidocaine on post-natal development in the rat that included assessment of the pups from weaning to sexual maturity. Rats were treated subcutaneously for 8 months with 10 or 30 mg/kg lidocaine, a treatment duration that included 3 mating periods. There was no evidence of altered post-natal development in any offspring; however, both doses of lidocaine significantly reduced the average number of pups per litter surviving until weaning of offspring from the first 2 mating periods.
Mutagenicity	The mutagenic potential of lidocaine was evaluated in the Ames Salmonella reverse mutation assay, an in vitro chromosome aberrations assay in human lymphocytes and in an in vivo mouse micronucleus assay. There was no indication of any mutagenic effect in these studies.
Carcinogenicity	Long-term studies in animals to evaluate the carcinogenic potential of most local anesthetics, including lidocaine, have not been conducted.
Target Organ Effects	Based on clinical use, possible target organs include the nervous system and the cardiovascular system.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity	Not determined for product.
Persistence/Biodegradability	Not determined for product.
Bioaccumulation	Not determined for product.
Mobility in Soil	Not determined for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	All waste materials must be properly characterized by the waste generator. Further, disposal of all pharmaceuticals should be performed in accordance with the federal, state or local regulatory requirements.

Container Handling and Disposal	Dispose of container and unused contents in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

ADR/ADG/ DOT STATUS:	Not regulated
IMDG STATUS:	Not regulated
ICAO/IATA STATUS:	Not regulated
Transport Comments:	None

15. REGULATORY INFORMATION

USA Regulations

Substance	TSCA Status	CERCLA Status	SARA 302 Status	SARA 313 Status	PROP 65 Status
Lidocaine Hydrochloride	Listed	Not Listed	Not Listed	Not Listed	Not Listed

RCRA Status	Not Listed
U.S. OSHA Classification	Target Organ Toxin Possible Irritant
GHS Classification	*In the EU, classification under GHS/CLP does not apply to certain substances and mixtures, such as medicinal products as defined in Directive 2001/83/EC, which are in the finished state, intended for the final user:
Hazard Class	Not Applicable
Hazard Category	Not Applicable
Signal Word	Not Applicable
Symbol	Not Applicable
Prevention	P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
Hazard Statement	Not Applicable
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. Wash hands after handling. Get medical attention if you feel unwell.

EU Classification*

*Medicinal products are exempt from the requirements of the EU Dangerous Preparations Directive. Information provided below is for the pure drug substance Lidocaine Hydrochloride

Classification(s):	Not Applicable
Symbol:	Not Applicable
Indication of Danger:	Not Applicable

Product Name: Lidocaine Hydrochloride Injection

Hospira

Risk Phrases: Not Applicable

Safety Phrases: S23 - Do not breathe vapor.
S24/25 - Avoid contact with skin and eyes.
S37/39 - Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION:

Notes:

ACGIH TLV	American Conference of Governmental Industrial Hygienists – Threshold Limit Value
CAS	Chemical Abstracts Service Number
CERCLA	US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act
DOT	US Department of Transportation Regulations
EEL	Employee Exposure Limit
IATA	International Air Transport Association
LD50	Dosage producing 50% mortality
NA	Not applicable/Not available
NE	Not established
NIOSH	National Institute for Occupational Safety and Health
OSHA PEL	US Occupational Safety and Health Administration – Permissible Exposure Limit
Prop 65	California Proposition 65
RCRA	US EPA, Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act
STEL	15-minute Short Term Exposure Limit
TSCA	Toxic Substance Control Act
TWA	8-hour Time Weighted Average

MSDS Coordinator: Hospira GEHS
Date Prepared: 10/13/2011
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