

# Monthly Safety Notice

January 2019

National Baromedical Services, Inc.

## Common Flammable Products to Avoid

### Background

In the 2018 edition of NFPA 99, Chapter 14.3.1.6.2.3 states 'Flammable liquids, gases, or vapors shall not be permitted inside any Class B chamber.'

Hospitals commonly stock such items for infection control and patient care uses. It is important to identify these potential hazards, understand their risks, prevent them from entering the vicinity of the hyperbaric chamber, and seek safer alternatives if necessary.

### The Issue

A frequently asked question for hyperbaric oxygen patients is "are polished or artificial nails allowed?" The common response is "it depends". This is because dried nail polishing products from a manicure greater than four hours should no longer be off gassing flammable vapors and posing a chamber fire risk. Obviously, patients with nails that are still wet should not undergo HBO therapy. However should nail polish remover (acetone) be used to remove the old or new polish prior to HBO treatment, this would increase fire risk by introducing flammable acetone vapors into the potentially oxygen rich vicinity of the chambers. Therefore, in this scenario, leaving the dried nail products in place represents the safest approach. It is recommended that acetone not be stocked in the hyperbaric oxygen department.

Using alcohol preps to clean fingers for blood sugar checks adjacent to the chamber should be avoided. While alcohol evaporates rather quickly, it is not worth the risk of having this flammable product on patient's skin or having the alcohol prep pad inadvertently introduced into the chamber.

Skin Prep, commonly used in the wound center to aid a dressing adhere to tissue, is another flammable product, and should not be stocked or used in the hyperbaric department. If needed to secure a dressing it should be applied outside the HBO unit and well ahead of HBO treatment time. Alternatively, it might be best to leave the dressing off rather than taking the risk of introducing a flammable product into the chamber.

### **Bottom Line**

For your reference, the MSDS samples for the products discussed here are attached. Please note their fire hazard warnings. We recommend prohibiting the following products in the HBO department: isopropyl alcohol, acetone and Skin Prep.

Benzalkonium Chloride 0.13% (BZK) pads can be used as an antiseptic alternative for cleaning patient's skin for blood sugar finger sticks and IV ports. BZK is non-flammable and without dangerous vapors.

### **Attachments**



# Safety Data Sheet

## NAIL POLISH REMOVER PADS

### Section 1. Identification

Product Identifier NAIL POLISH REMOVER PADS  
Synonyms MDS090780  
Manufacturer Stock Numbers MDS090780

Recommended use N/A  
Uses advised against N/A

Manufacturer Contact  
Address Medline Industries, Inc.  
One Medline Place  
Mundelein, IL, 60060  
USA

Phone  
(800) 633-5463

Emergency Phone  
(800) 424-9300

Fax  
(847) 643-4436

CHEMTREC CHEMTREC

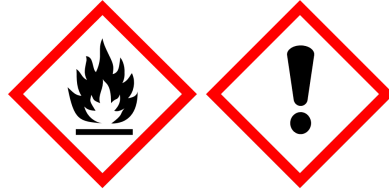
Website  
[www.Medline.com](http://www.Medline.com)

### Section 2. Hazards Identification

Classification ACUTE TOXICITY - DERMAL - Category 5  
ACUTE TOXICITY - INHALATION - Category 5  
ACUTE TOXICITY - ORAL - Category 5  
EYE DAMAGE/IRRITATION - Category 2B  
FLAMMABLE LIQUIDS - Category 3  
SENSITIZATION - SKIN - Category 1B

Signal Word Warning

Pictogram



Hazard Statements

Causes eye irritation  
Flammable liquid and vapor  
May be harmful if inhaled  
May be harmful if swallowed  
May be harmful in contact with skin  
May cause an allergic skin reaction

Precautionary Statements

Response

Call a poison center/doctor/ ... /if you feel unwell.  
If eye irritation persists: Get medical advice/attention.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF INHALED: 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/shower.  
If on skin: Wash with plenty of water/ ...  
If skin irritation or rash occurs: Get medical advice/attention.  
In case of fire: Use ... to extinguish.  
Specific treatment (see ... on this label)  
Wash contaminated clothing before reuse.

Prevention

Avoid breathing dust/fume/gas/mist/ vapors/spray.  
Contaminated work clothing must not be allowed out of the workplace.  
Ground/bond container and receiving equipment.  
Keep away from heat.  
Keep container tightly closed.  
Take precautionary measures against static discharge.  
Use explosion-proof electrical/ventilating/lighting/.../equipment.  
Use only non-sparking tools.  
Wash ...thoroughly after handling.  
Wear protective gloves.  
Wear protective gloves/eye protection/face protection

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents/container to ...

Ingredients of unknown toxicity

0%

Hazards not Otherwise Classified

No Data Available

## Section 3. Ingredients

CAS	Ingredient Name	Weight %
141-78-6	Acetic acid ethyl ester	85 %

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-Aid Measures

Eye Contact:	Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses, if worn. If irritation persists, seek medical attention.
Skin Contact:	Wash with soap and water; if irritation persists, seek medical attention.
Inhalation:	Remove victim to fresh air. Seek medical attention if discomfort continues.
Ingestion:	If swallowed, call a physician immediately. Rinse mouth and throat thoroughly with water. Do not induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.

## Section 5. Fire Fighting Measures

Suitable Extinguishing Media	In case of fire, use Water, Carbon Dioxide (CO <sub>2</sub> ), Foam, Dry Chemical
Unsuitable Extinguishing Media	
Unusual Fire and Explosion Hazards	
Special Fire Fighting Procedures	

## Section 6. Accidental Release Measures

Flammable Small Spill:	Absorb with an inert dry material and place in an appropriate waste disposal container.
Flammable Large Spill:	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

## Section 7. Handling and Storage

Handling Flammable:	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/ fumes/ vapor/ spray. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.
Storage Flammable:	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

## Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	Acetic acid ethyl ester	N/A	N/A	N/A
Personal Protective Equipment	N/A			
Engineering Controls:	Ventilation:			
Respiratory Protection:	Respiratory protection may be worn if ventilation does not eliminate symptoms or keeps levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved organic respirator. NIOSH-Approved Supplied Air Respirator (SAR). NIOSH-Approved self-contained breathing apparatus. Do not exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.			
Skin Protection:	N.A.			
Eye Protection:	Wear chemical safety goggles while handling this product. Do not wear contact lenses. Wear additional eye protection such as face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.			
Other protective equipment:	N.A.			
Work/hygienic practices:	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.			

## Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear, colorless
Odor	Fruity odor
Odor Threshold	N/A
Solubility	8.7% @ 20° C (Floats on water)
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	0.9
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	24.0° F (-4.5° C)
FP Method	TCC
Ph	N/A
Melting Point	N.A.
Boiling Point	77.0° C
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	73.0
Vapor Density	3.0

## Section 10. Stability and Reactivity

Stability:	Stable.
Reactivity:	None
Incompatibility (Materials to Avoid):	Strong oxidizing agents. Strong acids
Hazardous Decomposition or Byproducts:	Burning may produce Carbon Monoxide, Carbon Dioxide and other hazardous components.
Hazardous Polymerization	N.D.
Conditions to avoid	None

## Section 11. Toxicological Information

Acute Toxicity: Eye Contact	Contact may cause temporary moderate irritation
Acute Toxicity: Skin Contact	May cause mild irritation on patients with sensitive skin
Acute Toxicity: Inhalation	N.A.
Acute Toxicity: Ingestion	May be harmful if swallowed
Carcinogenicity:	None known
Chronic Toxicity:	None known

## Section 12. Ecological Information

Toxicity:	N.A.
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## Section 13. Disposal

Waste Disposal:	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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## Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	Not Regulated
DOT Classification	Not Regulated
Packing Group	N/A
IATA:	N.A.
IMDG:	N.A.

## Section 15. Regulatory Information

US Federal Regulations: General Product Information	N.A.
US Federal Regulations: Clean Air Act	N.A.
US Federal Regulations: Component Analysis	N.A.
US Federal Regulations: Food & Drug Administration	N.A.
State Regulations: General Product Information	N.A.
State Regulations: Component Analysis	N.A.
Other Regulations:	N.A.
Other Classifications:	N.A.
WHMIS (Canada):	N.A.
California Prop.65:	N.A.



## Section 16. Other Information

Revision Date

5/29/2015

Legend

N.A. - Not Applicable  
N.E. - Not Established  
N.D. - Not Determined

Additional Information

The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees

Additional Information

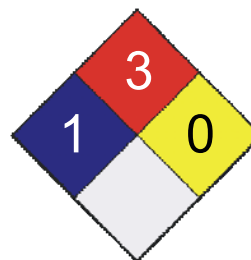
NFPA 1-3-1

## 1. Product and Company Identification

<b>Product Name</b>	<b>PDI Alcohol Prep Pads/ Swabsticks (1's &amp; 3's)</b>	<b>MSDS0086</b>
<b>CAS #</b>	Mixture	
<b>Product use</b>	Topical Skin Cleanser	
<b>Manufacturer</b>	Professional Disposables International, Inc. Two Nice-Pak Park Orangeburg, NY 10962-1376 or Distributed by: Professional Disposables International Ltd. Ontario CA Phone (USA) 1-845-365-1700 (M-F 8am - 5pm) Phone (CANADA) 1-800-263-7067	

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 1
Flammability	3
Physical Hazard	0
Personal Protection	



## 2. Hazards Identification

**Emergency overview** For external use only. Avoid contact with eyes. May cause eye irritation.  
WARNING  
COMBUSTIBLE. Keep away from fire or flame.  
Irritating to eyes.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.

**Eyes** May cause irritation.

**Skin** Non-irritating based on test data. Not a skin sensitizer based on test data.

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

**Target organs** Blood. Eyes. Liver. Respiratory system.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin.  
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

## 3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Isopropyl Alcohol	67-63-0	60 - 100
Water	7732-18-5	30 - 60

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**Skin contact** Discontinue use if irritation and redness develop. If condition persists for more than 72 hours, consult a physician.

<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	If swallowed, get medical help or contact a Poison Control Center immediately.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep out of reach of children.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Combustible material. ICAO Test Method 1.1.2.1.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Alcohol foam. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Remove sources of ignition. Pick up and discard towel.
<b>Other information</b>	Pick up and discard towel.

## 7. Handling and Storage

<b>Handling</b>	Use according to package label instructions. Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Store at room temperature in the original container.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Alcohol	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Not normally required. Avoid contact with eyes.
<b>Hand protection</b>	Not required.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink.

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## 9. Physical & Chemical Properties

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<b>Appearance</b>	Liquid saturated on wipe
<b>Color</b>	Clear, colorless on a wipe
<b>Form</b>	Pre-moistened towelette.
<b>Odor</b>	Alcohol
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Pre-moistened towelette
<b>pH</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Flash point</b>	25.6 °C (78 °F) (Liquid) (Tag closed cup)
<b>Evaporation rate</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	0.877 (Liquid)
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Pad is not soluble in water
<b>Auto-ignition temperature</b>	Not available
<b>VOC (Weight %)</b>	62% w/w% The liquid is a volatile.
<b>Viscosity</b>	Not available
<b>Percent volatile</b>	Not available

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## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Avoid high temperatures. Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizers. Caustics.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
Alcohol	31623 ppm rat

### Component analysis - Oral LD50

Ingredient(s)	LD50
Alcohol	3450 mg/kg mouse; 1501 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	May cause irritation.
<b>Skin</b>	Non-irritating based on test data. Not a skin sensitizer based on test data.
<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
<b>Ingestion</b>	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Non-hazardous by OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by OSHA criteria.

### ACGIH - Threshold Limits Values - Carcinogens

Alcohol	67-63-0	A4 - Not Classifiable as a Human Carcinogen
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<b>Mutagenicity</b>	Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol.
<b>Reproductive effects</b>	Non-hazardous by OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by OSHA criteria.

## 12. Ecological Information

<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.	
<b>Ecotoxicity - Freshwater Fish Species Data</b>		
Alcohol	67-63-0	96 Hr LC50 <i>Oncorhynchus mykiss</i> : 12900 mg/L [flow-through] (30 days old); 96 Hr LC50 <i>Pimephales promelas</i> : 14.2 mg/L
<b>Ecotoxicity - Microtox Data</b>		
Alcohol	67-63-0	5 Min EC50 <i>Photobacterium phosphoreum</i> : 35470 mg/L; 30 min EC50 <i>Photobacterium phosphoreum</i> : 34634 mg/L
<b>Ecotoxicity - Water Flea Data</b>		
Alcohol	67-63-0	48 Hr EC50 <i>Daphnia magna</i> : 9268 mg/L; 24 Hr EC50 <i>Daphnia magna</i> : 10800 mg/L
<b>Environmental effects</b>	Not available	
<b>Aquatic toxicity</b>	Not available	
<b>Persistence / degradability</b>	This product is not readily biodegradable.	
<b>Bioaccumulation / accumulation</b>	Not available	
<b>Partition coefficient</b>	Not available	
<b>Mobility in environmental media</b>	Not available	
<b>Chemical fate information</b>	Not available	

## 13. Disposal Considerations

<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

## 14. Transport Information

<b>Department of Transportation (DOT)</b>	
<b>Basic shipping requirements:</b>	
<b>Proper shipping name</b>	Solids containing flammable liquid, n.o.s. (ETHANOL)
<b>Hazard class</b>	4.1
<b>UN number</b>	UN3175
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	47, IB6, IP2, T3, TP33
<b>Packaging exceptions</b>	<1Kg-Consumer Commodity ORM-D
<b>ERG number</b>	133



## 15. Regulatory Information

<b>US Federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.	
<b>Occupational Safety and Health Administration (OSHA)</b>		
<b>29 CFR 1910.1200 hazardous chemical</b>	Yes	
<b>CERCLA (Superfund) reportable quantity</b>		
	None	

## 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** No

**Section 311 hazardous chemical** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**Safe Drinking Water Act (SDWA)** Not available

**Drug Enforcement Agency (DEA)** Not available

**Food and Drug Administration (FDA)** Not available

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

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.

#### U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Alcohol 67-63-0 Present (refers to solutions greater than or equal to 25% which are not beverage alcohols)

#### U.S. - California - Proposition 65 - Developmental Toxicity

Alcohol 67-63-0 developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)

#### U.S. - Massachusetts - Right To Know List

Alcohol 67-63-0 Teratogen

#### U.S. - Minnesota - Hazardous Substance List

Alcohol 67-63-0 Present

#### U.S. - New Jersey - Right to Know Hazardous Substance List

Alcohol 67-63-0 sn 0844

#### U.S. - Pennsylvania - RTK (Right to Know) List

Alcohol 67-63-0 Present

#### U.S. - Rhode Island - Hazardous Substance List

Alcohol 67-63-0 Toxic; Flammable

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## 16. Other Information

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### Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

### Recommended use

For external use only. Keep away from children, unless under adult supervision.

### Issue date

15-Aug-2013

### Effective date

15-Nov-2013

### Prepared by

Nice-Pak Products, Inc.(845) 365-1700

# Safety Data Sheet

## Skin Prep Wipes

### 1. Identification

#### 1.1. Product identifier

**Product Identity** Skin Prep Wipes

**Alternate Names** Skin Prep Wipes

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

**Intended use** Skin Preparation

**Application Method** See Technical Data Sheet.

#### 1.3. Details of the supplier of the safety data sheet

**Company Name** Smith & Nephew  
970 Lake Carillon Drive, Suite 110  
St. Petersburg, FL 33716

#### Emergency

**Customer Service: Smith & Nephew** 1-800-876-1261

### 2. Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Flam. Liq. 2;H225 Highly Flammable liquid and vapor.  
Eye Irrit. 2;H319 Causes serious eye irritation.  
STOT SE 3;H336 May cause drowsiness or dizziness.

#### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Danger**

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness and dizziness.

#### [Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P235 Keep cool.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

# Safety Data Sheet

## Skin Prep Wipes

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 / eye protection / face protection.

### [Response]:

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P337+313 If eye irritation persists: Get medical advice / attention.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

### [Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

### [Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

## 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Isopropyl Alcohol CAS Number: 0000067-63-0	75 - 100	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	[1][2]
BUTENEDIOIC ACID (Z)-, MONOBUTYL ESTER, POLYMER WI CAS Number: 0025119-68-0	10 - 25	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

## 4. First aid measures

### 4.1. Description of first aid measures

#### General

In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

#### Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.



# Safety Data Sheet

## Skin Prep Wipes

<b>Eyes</b>	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
<b>Skin</b>	No first aid should be needed.
<b>Ingestion</b>	Do not induce vomiting. Contact the poison control center or a physician immediately for instructions.

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

#### Overview

##### Acute Effects

**Inhalation:** Exposure to high air concentrations may cause mild irritation to nose and throat. Drowsiness, headache, and mild narcosis can occur from inhalation.

**Eye:** Exposure to high air concentrations may cause mild irritation to eyes.

**Ingestion:** Ingestion may cause drowsiness, burning of the gastrointestinal tract, and death. Ingestion may cause gastrointestinal pain, cramps, nausea and vomiting.

**Medical Conditions Aggravated by Long-Term Exposure:** Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from pre-existing disorders may be aggravated by exposure to this product.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

See section 2 for further details.

<b>Inhalation</b>	May cause drowsiness or dizziness.
<b>Eyes</b>	Causes serious eye irritation.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Carbon dioxide, dry chemical, alcohol foam

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of Carbon and unidentified organic compounds.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

### 5.3. Advice for fire-fighters

Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

Wear self-contained breathing apparatus and protective clothing.

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## Skin Prep Wipes

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### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

#### 6.3. Methods and material for containment and cleaning up

Mop or wipe up small spills. Ventilate area.

Dike large spills to minimize contamination and contain material. Remove all sources of heat and ignition. Absorb with sand or vermiculite. Ventilate area to dissipate vapors.

### 7. Handling and storage

#### 7.1. Precautions for safe handling

Do not use with electrocautery procedures.

See section 2 for further details. - [Prevention]:

#### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong oxidizing agents

Store in a cool ( $\leq 77^{\circ}\text{F} / 25^{\circ}\text{C}$ ), dry, well-ventilated area away from strong oxidizing agents, sources of heat, sparks, and open flames.

See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)

No data available.

### 8. Exposure controls and personal protection

#### 8.1. Control parameters

##### Exposure

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	TWA 400 ppm (980 mg/m <sup>3</sup> ) STEL 500 ppm
		ACGIH	TWA: 200 ppm STEL: 400 ppm Revised 2003,
		NIOSH	TWA 400 ppm (980 mg/m <sup>3</sup> ) ST 500 ppm (1225 mg/m <sup>3</sup> )
		Supplier	No Established Limit
0025119-68-0	BUTENEDIOIC ACID (Z)-, MONOBUTYL ESTER, POLYMER WI	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

# Safety Data Sheet

## Skin Prep Wipes

		Supplier	No Established Limit
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### Carcinogen Data

CAS No.	Ingredient	Source	Value
0000067-63-0	Isopropyl Alcohol	OSHA	Select Carcinogen: No
		NTP	Know n: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0025119-68-0	BUTENEDIOIC ACID (Z)-, MONOBUTYL ESTER, POLYMER VI	OSHA	Select Carcinogen: No
		NTP	Know n: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

### 8.2. Exposure controls

<b>Respiratory</b>	None required for normal use.
<b>Eyes</b>	None required for normal use.
<b>Skin</b>	None required for normal use.
<b>Engineering Controls</b>	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
<b>Other Work Practices</b>	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

## 9. Physical and chemical properties

<b>Appearance</b>	Clear, Colorless Liquid
<b>Odor</b>	Alcohol Odor
<b>Odor threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Melting point / freezing point</b>	Not determined
<b>Initial boiling point and boiling range</b>	180°F
<b>Flash Point</b>	53°F / 11.7°C
<b>Evaporation rate (Ether = 1)</b>	2.83 (nBuAc = 1)
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit: 2.5</b> <b>Upper Explosive Limit: 12</b>
<b>Vapor pressure (Pa)</b>	33 mmHg
<b>Vapor Density</b>	2.1 (Air = 1)
<b>Specific Gravity</b>	0.85 @ 25°C (H <sub>2</sub> O = 1)
<b>Solubility in Water</b>	Miscible
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not determined
<b>Decomposition temperature</b>	Not available

# Safety Data Sheet

## Skin Prep Wipes

**Viscosity (cSt)** Not determined  
**VOC Content** Not available

### 9.2. Other information

No other relevant information.

## 10. Stability and reactivity

### 10.1. Reactivity

Hazardous Polymerization will not occur.

### 10.2. Chemical stability

Stable under normal circumstances.

### 10.3. Possibility of hazardous reactions

Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 10.4. Conditions to avoid

Avoid excessive heat, open flames and all ignition sources.

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

Oxides of Carbon

## 11. Toxicological information

### Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Isopropyl Alcohol - (67-63-0)	4,710.00, Rat - Category: 5	12,800.00, Rat - Category: NA	72.60, Rat - Category: NA	No data available	No data available
BUTENEDIOIC ACID (Z)-, MONOBUTYL ESTER, POLYMER WI - (25119-68-0)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
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## Safety Data Sheet Skin Prep Wipes

Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	3	May cause drowsiness or dizziness.
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

## 12. Ecological information

### 12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Isopropyl Alcohol - (67-63-0)	1,400.00, Lepomis macrochirus	100.00, Daphnia magna	100.00 (72 hr), Scenedesmus subspicatus
BUTENEDIOIC ACID (Z)-, MONOBUTYL ESTER, POLYMER WI - (25119-68-0)	Not Available	Not Available	Not Available

### 12.2. Persistence and degradability

There is no data available on the preparation itself.

### 12.3. Bioaccumulative potential

Not Measured

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

# Safety Data Sheet

## Skin Prep Wipes

### 13. Disposal considerations

#### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

### 14. Transport information

Not Subject to Regulations Per:

**Air:** IATA Special Provision A46  
**Ground:** 49 CFR 172.102 Special Provision 47  
**Ocean:** IMDG Special Provision 216

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>14.1. UN number</b>	UN3175	UN3175	UN3175
<b>14.2. UN proper shipping name</b>	UN3175, Solids containing flammable liquid, n.o.s., (Isopropyl Alcohol), 4.1, II	Solids containing flammable liquid, n.o.s., (Isopropyl Alcohol)	Solids containing flammable liquid, n.o.s., (Isopropyl Alcohol)
<b>14.3. Transport hazard class(es)</b>	<b>DOT Hazard Class:</b> 4.1	<b>IMDG:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Air Class:</b> Not Applicable
<b>14.4. Packing group</b>	II	II	II

#### 14.5. Environmental hazards

**IMDG** Marine Pollutant: No

#### 14.6. Special precautions for user

No further information

### 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act (TSCA)** All components of this material are either listed or exempt from listing on the TSCA Inventory.

**WHMIS Classification** B2 D2B

#### US EPA Tier II Hazards

**Fire:** Yes

**Sudden Release of Pressure:** No

**Reactive:** No

**Immediate (Acute):** Yes

**Delayed (Chronic):** No

#### EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

# Safety Data Sheet

## Skin Prep Wipes

### **EPCRA 302 Extremely Hazardous:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### **EPCRA 313 Toxic Chemicals:**

Isopropyl Alcohol

### **Proposition 65 - Carcinogens (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### **Proposition 65 - Developmental Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### **Proposition 65 - Female Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### **Proposition 65 - Male Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### **New Jersey RTK Substances (>1%):**

Isopropyl Alcohol

### **Pennsylvania RTK Substances (>1%):**

Isopropyl Alcohol

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness and dizziness.

Not Classified

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

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