

Chemwatch Material Safety Data Sheet  
 Issue Date: 30-Aug-2011  
 X9317SP

CHEMWATCH 40166  
 Version No:8  
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**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME**

J&J Medical Microshield Handrub

**SYNONYMS**

"Chlorhexidene / Alcohol Skin Antiseptic, Manufacturer's Code: 61356, 61357"

**PROPER SHIPPING NAME**

ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

**PRODUCT USE**

Hand and skin antiseptic for external use.

**SUPPLIER**

Company: Johnson & Johnson Medical Pty Ltd  
 Address:  
 1- 5 Khartoum Road  
 North Ryde  
 NSW, 2113  
 Australia  
 Telephone: +61 2 9878 9000  
 Telephone: 1800 257 210  
 Emergency Tel: **13 11 26**  
 Emergency Tel: **+64 3 474 7000 NZ**  
 Fax: 1800 808 233  
 Website: <http://www.jnjaust.com.au/home.aspx>

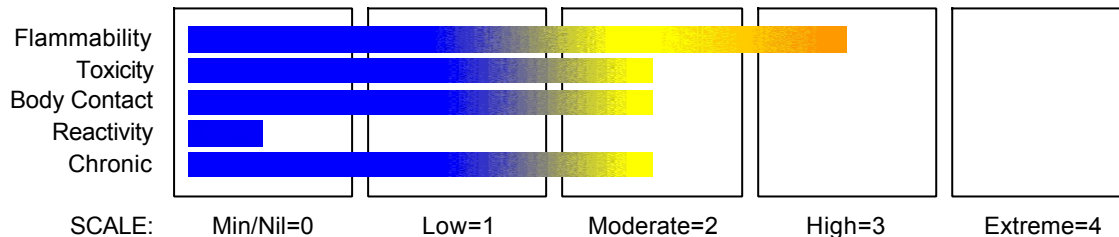
Company: Johnson & Johnson Medical Pty Ltd  
 Address:  
 PO Box 134  
 North Ryde  
 NSW, 2113  
 Australia

**Section 2 - HAZARDS IDENTIFICATION**

**STATEMENT OF HAZARDOUS NATURE**

**HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.**

**CHEMWATCH HAZARD RATINGS**



**RISK**

- Highly flammable.
- Irritating to eyes.
- Inhalation and/or ingestion may produce health damage\*.
- Cumulative effects may result following exposure\*.
- May produce discomfort of the respiratory system and skin\*.

**SAFETY**

- Keep away from sources of ignition. No smoking.
- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable gloves.

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Section 2 - HAZARDS IDENTIFICATION

- Possible skin sensitiser\*.
  - Vapours potentially cause drowsiness and dizziness\*.
- \*(limited evidence).

- Wear eye/face protection.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- Do not empty into drains.
- To clean the floor and all objects contaminated by this material, use water.
- Keep container tightly closed.
- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
- This material and its container must be disposed of as hazardous waste.

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethanol	64-17-5	70
chlorhexidine gluconate	18472-51-0	0.5
ethoxylated lanolin		0-10
glycerol	56-81-5	0-10
fragrance		0-10
dye		0-10
water	7732-18-5	balance

### Section 4 - FIRST AID MEASURES

#### SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

#### EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

#### SKIN

- No adverse effects anticipated from normal use.
- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.

#### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

#### NOTES TO PHYSICIAN

For acute or short term repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).

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Section 4 - FIRST AID MEASURES

- Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
  - Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
  - Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- Emesis is contraindicated as the product will foam.

Section 5 - FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA**

- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide.
- Water spray or fog - Large fires only.

**FIRE FIGHTING**

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.

**FIRE/EXPLOSION HAZARD**

- Liquid and vapour are flammable.
- Moderate fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- Moderate explosion hazard when exposed to heat or flame.

**FIRE INCOMPATIBILITY**

- Avoid contamination with strong oxidising agents as ignition may result.

**HAZCHEM**

•2YE

Section 6 - ACCIDENTAL RELEASE MEASURES

**MINOR SPILLS**

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.

**MAJOR SPILLS**

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

**PROCEDURE FOR HANDLING**

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

**SUITABLE CONTAINER**

- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.

**STORAGE INCOMPATIBILITY**

Avoid storage with oxidisers strong alkalis and strong acids.

**STORAGE REQUIREMENTS**

- Store in original containers in approved flame-proof area.
  - No smoking, naked lights, heat or ignition sources.
  - DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
  - Keep containers securely sealed.
- Keep cool. Store below 25 deg.C.

**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE CONTROLS**

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	Peak ppm	Peak mg/m <sup>3</sup>	TWA F/CC	Notes
Australia Exposure Standards	ethanol (Ethyl alcohol)	1000	1880						
Australia Exposure Standards	glycerol (Glycerin mist (a))		10						(see Chapter 14)

The following materials had no OELs on our records

- chlorhexidine gluconate: CAS:18472- 51- 0
- water: CAS:7732- 18- 5

**ODOUR SAFETY FACTOR (OSF)**

OSF=6 (ETHANOL)

■ Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

**MATERIAL DATA**

CHLORHEXIDINE GLUCONATE:  
 ETHANOL:  
 GLYCEROL:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

J&J MEDICAL MICROSIELD HANDRUB:  
 None assigned. Refer to individual constituents.

ETHANOL:  
 For ethanol:  
 Odour Threshold Value: 49-716 ppm (detection), 101 ppm (recognition)  
 Eye and respiratory tract irritation do not appear to occur at exposure levels of less than 5000 ppm and the TLV-TWA is thought to provide an adequate margin of safety against such effects. Experiments in man show that inhalation of 1000 ppm caused slight symptoms of poisoning and 5000 ppm caused strong stupor and morbid sleepiness.

CHLORHEXIDINE GLUCONATE:  
 CEL TWA: 0.0027 ppm; 0.1 mg/m<sup>3</sup>\* [AstraZeneca]

GLYCEROL:  
 The mist is considered to be a nuisance particulate which appears to have little adverse effect on the lung and does not produce significant organic disease or toxic effects. OSHA concluded that the nuisance particulate limit would protect the worker from kidney damage and perhaps, testicular effects.

WATER:  
 No exposure limits set by NOHSC or ACGIH.

**PERSONAL PROTECTION**



**RESPIRATOR**

• Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

**EYE**

- No special equipment for minor exposure i.e. when handling small quantities.
- OTHERWISE:
- Safety glasses with side shields.

**HANDS/FEET**

- No special equipment needed when handling small quantities.
- OTHERWISE: Wear chemical protective gloves, eg.

**OTHER**

- Overalls.
- Eyewash unit.

**ENGINEERING CONTROLS**

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Pale pink flammable liquid with cologne fragrance; mixes with water.

### PHYSICAL PROPERTIES

Liquid.  
Mixes with water.

State	Liquid	Molecular Weight	Not applicable
Melting Range (°C)	Not available	Viscosity	Not Available
Boiling Range (°C)	78 (ethanol)	Solubility in water (g/L)	Miscible
Flash Point (°C)	22	pH (1% solution)	Not available
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not available
Autoignition Temp (°C)	Not available	Vapour Pressure (kPa)	5.85 @ 20 deg C
Upper Explosive Limit (%)	19.0 (ethanol)	Specific Gravity (water=1)	0.88
Lower Explosive Limit (%)	3.5 (ethanol)	Relative Vapour Density (air=1)	Not available
Volatile Component (%vol)	Not available	Evaporation Rate	Not available

## Section 10 - STABILITY AND REACTIVITY

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
  - Product is considered stable.
  - Hazardous polymerisation will not occur.
- For incompatible materials - refer to Section 7 - Handling and Storage.*

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

- The liquid is highly discomforting.
- Ingestion may result in nausea, abdominal irritation, pain and vomiting.

##### EYE

- The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

##### SKIN

- The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
- Not considered an irritant through normal use.

##### INHALED

- The vapour is discomforting.
- Inhalation hazard is increased at higher temperatures.  
Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination. with dizziness, disorientation, mental confusion, slurred speech.

##### CHRONIC HEALTH EFFECTS

- There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

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**TOXICITY AND IRRITATION**

■ Not available. Refer to individual constituents.

**Section 12 - ECOLOGICAL INFORMATION**

This material and its container must be disposed of as hazardous waste.

**Ecotoxicity**

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
ethanol	LOW	MED	LOW	HIGH
chlorhexidine gluconate	No Data Available	No Data Available		
glycerol	LOW	No Data Available	LOW	HIGH

**Section 13 - DISPOSAL CONSIDERATIONS**

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

**Section 14 - TRANSPORTATION INFORMATION**



Labels Required: FLAMMABLE LIQUID

**HAZCHEM:**

•2YE (ADG7)

**Land Transport UNDG:**

Class or division:	3	Subsidiary risk:	None
UN No.:	1170	UN packing group:	II
Shipping Name:ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)			

**Air Transport IATA:**

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1170	Packing Group:	II
Special provisions:	A3		
Cargo Only			
Packing Instructions:	364	Maximum Qty/Pack:	60 L
Passenger and Cargo			
Packing Instructions:	353	Maximum Qty/Pack:	5 L
Passenger and Cargo Limited Quantity			
Packing Instructions:	Y341	Maximum Qty/Pack:	1 L

Shipping name:ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

**Maritime Transport IMDG:**

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1170	Packing Group:	II
EMS Number:	F-E,S-D	Special provisions:	144

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Section 14 - TRANSPORTATION INFORMATION

Limited Quantities: 1 L  
Shipping name: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE

None

### REGULATIONS

#### Regulations for ingredients

##### ethanol (CAS: 64-17-5) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FEMA Generally Recognized as Safe (GRAS) Flavoring Substances 23 - Examples of FEMA GRAS Substances with Non-Flavor Functions", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway", "World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Competition (German)", "World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (English)", "World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (French)", "World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (Korean)"

##### chlorhexidine gluconate (CAS: 18472-51-0) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7"

##### glycerol (CAS: 56-81-5) is found on the following regulatory lists;

"Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines", "CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals"

##### water (CAS: 7732-18-5) is found on the following regulatory lists;

"Australia Inventory of Chemical Substances (AICS)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway"

No data for J&J Medical Microshield Handrub (CW: 40166)

## Section 16 - OTHER INFORMATION

### Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
chlorhexidine gluconate	18472- 51- 0	Xn; R22

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net/references](http://www.chemwatch.net/references).

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Section 16 - OTHER INFORMATION

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■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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*This is the end of the MSDS.*