

# J&J MEDICAL MICROSIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 1 of 13

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

J&J MEDICAL MICROSIELD HANDRUB

### SYNONYMS

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

### PROPER SHIPPING NAME

ETHANOL SOLUTION

### PRODUCT USE

Hand and skin antiseptic for external use.

### SUPPLIER

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

Company: Johnson & Johnson Medical Pty Ltd  
Address:  
1- 5 Khartoum Road  
North Ryde  
NSW, 2113  
AUS  
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

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## Section 2 - HAZARDS IDENTIFICATION

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### STATEMENT OF HAZARDOUS NATURE

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

### POISONS SCHEDULE

None

### RISK

Flammable.

Irritating to eyes.

### SAFETY

To clean the floor and all objects contaminated by this material use water and detergent.

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.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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NAME	CAS RN	%
ethanol	64-17-5	70
chlorhexidine gluconate	18472-51-0	0.5
ethoxylated lanolin		0-10

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# J&J MEDICAL MICROSIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 2 of 13

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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glycerol	56-81-5	0-10
fragrance		0-10
dye		0-10
water	7732-18-5	balance

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## Section 4 - FIRST AID MEASURES

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### 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.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

### 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.
- 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.
- Prosthesis 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.
- Transport to hospital, or doctor.

### 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).
  - 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.
  - Fructose administration is contra-indicated due to side effects.
- Emesis is contraindicated as the product will foam.

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# J&J MEDICAL MICROSIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 3 of 13  
Section 4 - FIRST AID MEASURES

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## Section 5 - FIRE FIGHTING MEASURES

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### 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.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

### 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.
  - Vapour may travel a considerable distance to source of ignition.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Decomposition products include chloroaniline.

### FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

HAZCHEM: 2[Y]

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

#### 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.

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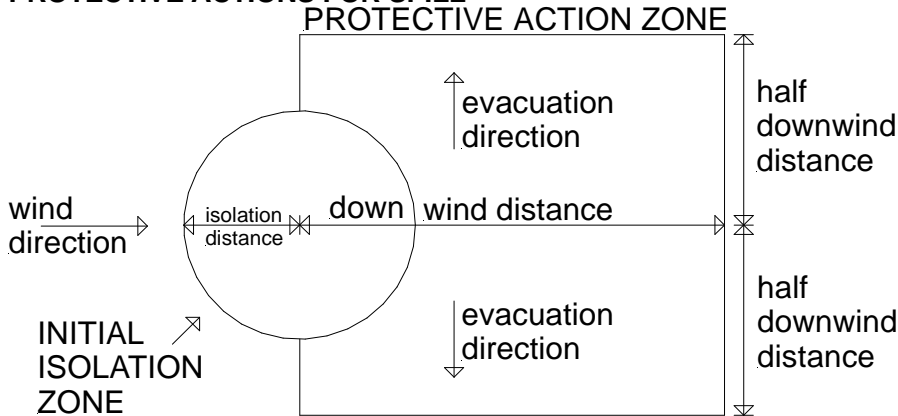
# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 4 of 13  
Section 6 - ACCIDENTAL RELEASE MEASURES

- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

## PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

Isolation Distance	25 metres
Downwind Protection Distance	300 metres
IERG Number	14

## FOOTNOTES

- 1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.
- 2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.
- 3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.
- 4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".  
LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.
- 5 Guide 127 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - Transport Canada.

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

continued...

# J&J MEDICAL MICROSIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 5 of 13

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## Section 7 - HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid generation of static electricity.
- DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

### 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.
  - Store away from incompatible materials in a cool, dry well ventilated area.
  - Protect containers against physical damage and check regularly for leaks.
  - Observe manufacturer's storing and handling recommendations.
- Keep cool. Store below 25 deg.C.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>
Australia Exposure Standards	ethanol (Ethyl alcohol)	1000	1880
Australia Exposure Standards	glycerol (Glycerin mist)		10

The following materials had no OELs on our records

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

continued...

# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 6 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (mg/m3)	Revised IDLH Value (mg/m3)
Revised IDLH Value (ppm)	15, 000	

### 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

None assigned. Refer to individual constituents.

### INGREDIENT DATA

ETHANOL:

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. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

continued...

# J&J MEDICAL MICROSIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 7 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus

increasing the risk of overexposure.

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. Subjects exposed to 5000 ppm to 10000 ppm experienced smarting of the eyes and nose and coughing. Symptoms disappeared within minutes. Inhalation also causes local irritating effects to the eyes and upper respiratory tract, headaches, sensation of heat intraocular tension, stupor, fatigue and a need to sleep. At 15000 ppm there was continuous lachrymation and coughing.

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 this limit would protect the worker from kidney damage and perhaps, testicular effects.

WATER:

No exposure limits set by NOHSC or ACGIH.

## PERSONAL PROTECTION

### EYE

No special equipment for minor exposure i.e. when handling small quantities.

· OTHERWISE:

- Safety glasses with side shields.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

### HANDS/FEET

No special equipment needed when handling small quantities.

OTHERWISE: Wear chemical protective gloves, eg. PVC.

### OTHER

- Overalls.
- Eyewash unit.

### RESPIRATOR

Respiratory protection is required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor

Half- Face Respirator

Full- Face Respirator

continued...

# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 8 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

(Min)		
10 x ES	A- P- - AUS	-
	A- P- - PAPR- AUS	-
50 x ES	-	A- P- - AUS
	-	A- P- - PAPR- AUS
100 x ES	-	A- P- - 2
	-	A- P- - PAPR- 2

^ - Full-face.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.  
For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

### ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.  
Avoid production of aerosols.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

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

### PHYSICAL PROPERTIES

Liquid.  
Mixes with water.

Molecular Weight: Not applicable  
Melting Range (°C): Not available  
Solubility in water (g/L): Miscible  
pH (1% solution): Not available  
Volatile Component (%vol): Not available  
Relative Vapour Density (air=1): Not available  
Lower Explosive Limit (%): 3.5 (ethanol)  
Autoignition Temp (°C): Not available  
State: Liquid

Boiling Range (°C): 78 (et hanol)  
Specific Gravity (water= 1): 0.88  
pH (as supplied): Not available  
Vapour Pressure (kPa): 5.85 @ 20 deg C  
Evaporation Rate: Not available  
Flash Point (°C): 22

Upper Explosive Limit (%): 19.0 (ethanol)  
Decomposition Temp (°C): Not Available  
Viscosity: Not Available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

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# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 9 of 13

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

The liquid is highly discomforting and harmful if swallowed in quantity and may cause dizziness, disorientation, mental confusion, slurred speech.  
Ingestion may result in nausea, abdominal irritation, pain and vomiting.  
Ingestion may result in intoxication, drunkenness.

##### 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.  
Chronic ingestion of chlorhexidine gluconate may result in liver or kidney damage. [Johnson & Johnson]

### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

#### ETHANOL:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

#### TOXICITY

Oral (rat) LD50: 7060 mg/kg  
Oral (human) LDLo: 1400 mg/kg  
Oral (man) TDLo: 50 mg/kg  
Oral (man) TDLo: 1.40 mg/kg  
Oral (woman) TDLo: 256 mg/kg/12 wks  
Inhalation (rat) LC50: 20, 000 ppm/10h  
Inhalation (rat) LC50: 64000 ppm/4h

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.

#### CHLORHEXIDINE GLUCONATE:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

#### TOXICITY

#### IRRITATION

Skin (rabbit):20 mg/24hr- Moderate  
Skin (rabbit):400 mg (open)- Mild  
Eye (rabbit):100mg/24hr- Moderate  
Eye (rabbit): 500 mg SEVERE

#### IRRITATION

continued...

# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 10 of 13  
Section 11 - TOXICOLOGICAL INFORMATION

Oral (rat) LD50: 2000 mg/kg Nil Reported  
Subcutaneous (rat) LD50: 3320 mg/kg  
Intravenous (rat) LD50: 24.2 mg/kg

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

## GLYCEROL:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

## TOXICITY

Oral (Rat) LD50: 12600 mg/kg

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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.

## IRRITATION

## WATER:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

No significant acute toxicological data identified in literature search.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
ethanol		ILOM		

## REPROTOXIN

ILOM: ILO Agents toxic to the male reproductive system: ethanol

## Section 12 - ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.  
Refer to data for ingredients, which follows:

### ETHANOL:

Fish LC50 (96hr.) (mg/l):	13480
Algae IC50 (72hr.) (mg/l):	1450
log Kow (Sangster 1997):	- 0.3
BOD5:	63%
ThOD:	2.1
Half- life Soil - High (hours):	24
Half- life Soil - Low (hours):	2.6
Half- life Air - High (hours):	122
Half- life Air - Low (hours):	12.2
Half- life Surface water - High (hours):	26
Half- life Surface water - Low (hours):	6.5
Half- life Ground water - High (hours):	52
Half- life Ground water - Low (hours):	13
Aqueous biodegradation - Aerobic - High (hours):	26
Aqueous biodegradation - Aerobic - Low (hours):	6.5

continued...

# J&J MEDICAL MICROSIELD HANDRUB

## Chemwatch Material Safety Data Sheet

Issue Date: 13-Mar-2008

NC317ECP

CHEMWATCH 40166

Version No:7

CD 2008/1 Page 11 of 13

### Section 12 - ECOLOGICAL INFORMATION

Aqueous biodegradation - Anaerobic - High (hours):	104
Aqueous biodegradation - Anaerobic - Low (hours):	26
Aqueous biodegradation - Removal secondary treatment - High (hours):	67%
Photooxidation half- life water - High (hours):	3.20E+05
Photooxidation half- life water - Low (hours):	8020
Photooxidation half- life air - High (hours):	122
Photooxidation half- life air - Low (hours):	12.2

DO NOT discharge into sewer or waterways.

log Kow: -0.31- -0.32

Half-life (hr) air: 144

Half-life (hr) H<sub>2</sub>O surface water: 144

Henry's atm m<sup>3</sup> /mol: 6.29E-06

BOD 5 if unstated: 0.93-1.67,63%

COD: 1.99-2.11,97%

ThOD: 2.1

When ethanol is released into the soil it readily and quickly biodegrades but may leach into ground water; most is lost by evaporation. When released into water the material readily evaporates and is biodegradable.

Ethanol does not bioaccumulate to an appreciable extent.

The material is readily degraded by reaction with photochemically produced hydroxy radicals; release into air will result in photodegradation and wet deposition.

#### CHLORHEXIDINE GLUCONATE:

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

#### GLYCEROL:

Algae IC<sub>50</sub> (72hr.) (mg/l): 2900- 10000

log Kow (Sangster 1997): - 1.76

log Pow (Verschueren 1983): 1.07692307

BOD<sub>5</sub>: 51%

COD: 95%

ThOD: 93%

DO NOT discharge into sewer or waterways.

log Kow: -2.66- -2.47

BOD 5 if unstated: 0.617-0.87,31-51%

COD: 1.16,82-95%

ThOD: 1.217-1.56

Completely biodegradable.

Fish LC<sub>50</sub>: >5000 mg/l

Algae IC<sub>50</sub>: >2900 mg/l

Bacteria EC<sub>50</sub>: .10000 mg/l (Pseudomonas putida)

### 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.

continued...

# J&J MEDICAL MICROSHIELD HANDRUB

Chemwatch Material Safety Data Sheet  
Issue Date: 13-Mar-2008  
NC317ECP

CHEMWATCH 40166  
Version No:7  
CD 2008/1 Page 12 of 13

## Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID  
HAZCHEM: 2[Y]

### UNDG:

Dangerous Goods Class:	3	Subrisk:	None
UN Number:	1170	Packing Group:	III
Shipping Name:	ETHANOL SOLUTION		

### Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1170	Packing Group:	III
Special provisions:	A3 A58 A148		
Shipping Name:	ETHANOL		

### Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1170	Packing Group:	III
EMS Number:	F- E, S- D	Special provisions:	144 223 330
Limited Quantities:	5 L		
Shipping Name:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)		

## Section 15 - REGULATORY INFORMATION

**POISONS SCHEDULE: None**

### REGULATIONS

J&J Medical Microshield Handrub (CAS: None):  
No regulations applicable

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
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5
- 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 Air Transport Association (IATA) Dangerous Goods Regulations
- International Council of Chemical Associations (ICCA) - High Production Volume List
- OECD Representative List of High Production Volume (HPV) Chemicals

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

- Australia Inventory of Chemical Substances (AICS)

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 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
- 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

continued...

# J&J MEDICAL MICROSHIELD HANDRUB

## Chemwatch Material Safety Data Sheet

Issue Date: 13-Mar-2008

NC317ECP

CHEMWATCH 40166

Version No:7

CD 2008/1 Page 13 of 13

Section 15 - REGULATORY INFORMATION

International Council of Chemical Associations (ICCA) - High Production Volume List  
OECD Representative 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  
OECD Representative List of High Production Volume (HPV) Chemicals

## Section 16 - OTHER INFORMATION

### REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoint	CR	Adeq TLV
ethanol	1880 mg/m <sup>3</sup>	NA	NA	NA	Yes

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive  
American Industrial Hygiene Association Journal 57: 641-649 (1996).

### EXPOSURE STANDARD FOR MIXTURES

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m<sup>3</sup>): 0.1 mg/m<sup>3</sup>

If the breathing zone concentration of ANY of the components listed below is exceeded,

"Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m<sup>3</sup> Mixture Conc: (%)

Component	Breathing zone (ppm)	Breathing Zone (mg/m <sup>3</sup> )	Mixture Conc (%)
chlorhexidine gluconate	0.00	0.1000	0.5

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).

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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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