

Johnson & Johnson Medical MICROSIELD* PVP

Chemwatch Material Safety Data Sheet

Issue Date: 1-Mar-2006

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

MICROSIELD PVP Povidone-Iodine Surgical Handwash

SYNONYMS

Povidone-Iodine Surgical Handwash, Manufacturer's Codes: 61377 and 61389,

PRODUCT USE

Broad spectrum antimicrobial surgical handwash for external use only.
Preoperative bodywash or showering. Use in pregnancy and lactation should be limited.

SUPPLIER

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

Company: Johnson & Johnson Medical Pty Ltd

Address:

PO Box 134

North Ryde

NSW, 2113

AUS

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

None

RISK

None under normal operating conditions.

SAFETY

Do not breathe gas/fumes/vapour/spray.
Use only in well ventilated areas.
Keep container in a well ventilated place.
Keep container tightly closed.
Take off immediately all contaminated clothing.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%w/v
povidone-iodine	25655-41-8	7.5
ethoxylated and sulphated alcohol		0-10
glycerol	56-81-5	0-10
sulphated alkylphenoethoxylate		0-10
sodium compound		0-10
pyrrolidone derivative		0-10
cellulose	9004-34-6	0-10
aliphatic acid		0-10
fragrance		0-10
potassium iodide	7681-11-0	0-10
water	7732-18-5	>20

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- 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 or hair irritation occurs:

- 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.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

Anaphylaxis is possible for sensitive individuals. Esophageal stricture may persist after recovery from immediate symptoms. starch (15 g flour in 500ml water) may be used to absorb iodine.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- 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.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Non combustible.
 - Not considered to be a significant fire risk.
 - Expansion or decomposition on heating may lead to violent rupture of containers.
 - Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
 - May emit acrid smoke.
- Other decomposition products include iodine.

FIRE INCOMPATIBILITY

None known.

HAZCHEM

None

Personal Protective Equipment

Breathing apparatus.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

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Section 6 - ACCIDENTAL RELEASE MEASURES

MAJOR SPILLS

Minor hazard.

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

povidone-iodine	125 mg/m ³
glycerol	500 mg/m ³
cellulose	500 mg/m ³
potassium iodide	300 mg/m ³
water	500 mg/m ³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

povidone-iodine	25 mg/m ³
glycerol	50 mg/m ³
cellulose	500 mg/m ³
potassium iodide	6 mg/m ³
water	500 mg/m ³

other than mild, transient adverse effects

without perceiving a clearly defined odour is:

povidone-iodine	25 mg/m ³
glycerol	30 mg/m ³
cellulose	30 mg/m ³
potassium iodide	0.75 mg/m ³
water	500 mg/m ³

The threshold concentration below which most people.

will experience no appreciable risk of health effects:

povidone-iodine	12.5 mg/m ³
glycerol	15 mg/m ³
cellulose	15 mg/m ³
potassium iodide	0.25 mg/m ³
water	500 mg/m ³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

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Section 6 - ACCIDENTAL RELEASE MEASURES

where percentage is percentage of ingredient found in the mixture

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING BULK OR LARGE QUANTITIES

- Avoid mixing with detergents.
- Avoid contact with other chemicals.
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- 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 are maintained.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid contact with reducing agents, alkaloid salts, chloral hydrate, and metallic salts.

STORAGE REQUIREMENTS

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

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³
Australia Exposure Standards	Inspirable dust (Not specified)		10				
Australia Exposure Standards	Glycerin mist (a)		10				
Australia Exposure Standards	Cellulose (paper)		10				

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³
Standards	fibre) (a)						
Australia Exposure Standards	Inspirable dust (Not specified)		10				
No data available:	povidone-iodine as (CAS: 25655-41-8)						
No data available:	cellulose as (CAS: 68442-85-3)						
No data available:	potassium iodide as (CAS: 7681-11-0)						
No data available:	water as (CAS: 7732-18-5)						

None assigned. Refer to individual constituents.

EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :100 mg/m³.

REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines (ORGs) have been suggested as an additional standard. These have been established after a literature search for the reproductive no-observed-adverse effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL). In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used in the creation of such limits.

Ingredient	ORG	UF	Endpoint	CR	TLV Adeq
potassium iodide	1.0 mg/m ³	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).

INGREDIENT DATA

POVIDONE-IODINE:

These "dusts" have little adverse effect on the lungs and do not produce toxic effects or organic disease. Although there is no dust which does not evoke some cellular response at sufficiently high concentrations, the cellular response caused by P.N.O.C.s has the following characteristics:

- the architecture of the air spaces remain intact,
- scar tissue (collagen) is not synthesised to any degree,

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- tissue reaction is potentially reversible.

Extensive concentrations of P.N.O.C.s may:

- seriously reduce visibility,
- cause unpleasant deposits in the eyes, ears and nasal passages,
- contribute to skin or mucous membrane injury by chemical or mechanical action, per se, or by the rigorous skin cleansing procedures necessary for their removal. [ACGIH]

This limit does not apply:

- to brief exposures to higher concentrations
- nor does it apply to those substances that may cause physiological impairment at lower concentrations but for which a TLV has as yet to be determined.

This exposure standard applies to particles which

- are insoluble or poorly soluble* in water or, preferably, in aqueous lung fluid (if data is available) and
- have a low toxicity (i.e.. are not cytotoxic, genotoxic, or otherwise chemically reactive with lung tissue, and do not emit ionizing radiation, cause immune sensitization, or cause toxic effects other than by inflammation or by a mechanism of lung overload).

GLYCEROL:

The mist is considered to be a nuisance particulate which appears to have little adverse effect on the lung and does produce significant organic disease or toxic effects. OSHA concluded that this limit would protect the worker from kidney damage and perhaps, testicular effects.

CELLULOSE:

Cellulose is considered a nuisance dust which has little adverse effect on lung and does not produce significant organic disease or toxic effects when appropriate controls are applied.

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.

Stains may be removed with dilute sodium thiosulfate solution.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OTHER

- Overalls.
- Eyewash unit.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	A-AUS P	-
1000	50	-	A-AUS P
5000	50	Airline *	-
5000	100	-	A-2 P
10000	100	-	A-3 P
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

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. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Dark brown viscous liquid with faint iodine odour; 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 (%): Not applicable

Autoignition Temp (C): Not applicable

State: Liquid

Boiling Range (C): Not available

Specific Gravity (water=1): 1.05

pH (as supplied): 5.0

Vapour Pressure (kPa): Not available.

Evaporation Rate: Not available

Flash Point (C): Not applicable

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available.

Viscosity: Not available

continued...

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.
The liquid is discomforting to the gastro-intestinal tract.
Ingestion may result in nausea, abdominal irritation, pain and vomiting if swallowed in large quantity.

EYE

The material is extremely discomforting to the eyes and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

SKIN

Not considered to cause discomfort through normal use.
The liquid may be slightly discomforting to the skin if exposure is prolonged and is capable of causing transient staining of the skin and skin reactions which may lead to dermatitis from repeated exposures over long periods.
One patient in 413 patients with contact dermatoses was found to be allergic to povidone-iodine.

INHALED

Not normally a hazard due to non-volatile nature of product.
Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

CHRONIC HEALTH EFFECTS

Primary route of exposure is usually by skin contact. Chronic use may increase blood iodine levels leading to altered thyroid function.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

POVIDONE-IODINE:

TOXICITY

Oral (rat) LD50: > 8000 mg/k
Oral (rat) LD50: 5990 mg/kg *
Dermal (human) TDL0: 3400 mg/Kg/24h

IRRITATION

Skin (rabbit): 500 mg Mild
[* = Manufacturer]

GLYCEROL:

TOXICITY

IRRITATION

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Section 11 - TOXICOLOGICAL INFORMATION

Oral (Rat) LD50: 12600 mg/kg

CELLULOSE:

TOXICITY

Oral (rat) LD50: > 5000 mg/kg

Dermal (rabbit) LD50: > 2000 mg/kg

IRRITATION

Nil Reported

POTASSIUM IODIDE:

TOXICITY

Oral (mouse) LDLo: 1862 mg/kg

IRRITATION

Nil Reported

WATER:

No significant acute toxicological data identified in literature search.

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

GLYCEROL:

Algae IC50 (72hr.) (mg/l): 2900-10000

log Kow (Sangster 1997): -1.76

log Pow (Verschueren 1983): 1.07692307

BOD5: 51%

COD: 95%

ThOD: 93%

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 LC50: >5000 mg/l

Algae IC50: >2900 mg/l

Bacteria EC50: .10000 mg/l (Pseudomonas putida)

POTASSIUM IODIDE:

Toxicity Fish: LC50(48)0.09-0.48mg/L

Toxicity invertebrate: LC50(48)0.8mg/L

Nitrif. inhib.: inhib at 0.05mg/L

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
 - Consult State Land Waste Management Authority for disposal.
 - Bury residue in an authorised landfill.
 - Recycle containers if possible, or dispose of in an authorised landfill.
- Iodine is reduced to iodide by addition of thiosulfate. The remaining solution is then suitable for disposal to the sewer. Seek approval from local authorities.

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Section 14 - TRANSPORTATION INFORMATION

HAZCHEM

None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN,IATA,IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

None

REGULATIONS

povidone-iodine (CAS: 25655-41-8) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
Australia Poisons Schedule

glycerol (CAS: 56-81-5) is found on the following regulatory lists;
Australia High Volume Industrial Chemical List (HVICL)
Australia Inventory of Chemical Substances (AICS)
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals

cellulose (CAS: 9004-34-6) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals
cellulose (CAS: 68442-85-3) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals

potassium iodide (CAS: 7681-11-0) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)

water (CAS: 7732-18-5) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

Ingredients with multiple CAS Nos

Ingredient Name	Cas Nos
cellulose	9004-34-6, 68442-85-3

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Section 16 - OTHER INFORMATION

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