

Issue Date: 03/06/2005
Last Revision Date: 07/02/2024
Superseded Date: 18/01/2021
Version Number: 05

SAFETY DATA SHEET

Product Code: BU0500

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SECTION 1 PRODUCT IDENTIFICATION

Product Name Betadine Alcoholic Skin Preparation
Synonyms Product Code: 9300655602538, 9300655602521; povidone-iodine solution
Proper shipping name ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Other means of identification Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses Bactericidal, sporicidal, fungicidal and virucidal antiseptic. For hospital and professional use only. Used prior to surgery to disinfect the operating site. Use in pregnancy and lactation should be limited.

Emergency telephone number

Association / Organisation Not Available

Emergency telephone numbers 1 800 424 9300 (within USA), +1 703 527 3887 (outside USA)

Other emergency telephone numbers Not Available

SECTION 2 HAZARD IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule Not Applicable

Classification [1] Flammable Liquid Category 3, Eye Irritation Category 2A

Legend 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)



Flame



Exclamation Point

Signal Word

WARNING

Hazard statement(s)

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statement(s) Prevention

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

P233 Keep container tightly closed.

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- P240** Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

- P370+P378** In case of fire: Use alcohol resistant foam or normal protein foam for extinction.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Precautionary statement(s) Storage

- P403+P235** Store in a well-ventilated place. Keep cool.

Precautionary statement(s) Disposal

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

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substances See section below for composition of Mixtures
Mixtures

| CAS No. | %[weight] | Name |
|---------------|-----------|-------------------------------------|
| 64-17-5 | 10 - 30 | ethanol |
| 25655-41-8 | 10 | povidone-iodine |
| Not Available | <5 | buffer |
| 56-81-5 | <5 | glycerol |
| 7732-18-5 | 30 - 60 | water |
| | | (equivalent to 1% available iodine) |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

- Eye Contact** 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

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Skin Contact

- Generally not applicable.
- Discontinue use if irritation occurs

Inhalation

- 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.

Ingestion

- If poisoning occurs, contact a doctor or Poisons Information Centre.

Indication of any immediate medical attention and special treatment needed

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.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing media

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility

Avoid contamination with strong oxidising agents as ignition may result

Advice for firefighters

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.

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
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- Other combustion products include:
carbon dioxide (CO₂)

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Hazchem •2Y

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures See section 8

Environmental precautions See section 12

Methods and material for containment and cleaning up

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.
- 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.
- 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.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

- Remove all ignition sources.
- Limit all unnecessary personal contact.
 - Wear protective clothing when risk of exposure occurs.
 - Use in a well-ventilated area.
 - When handling DO NOT eat, drink or smoke.
 - Always wash hands with soap and water after handling.
 - Avoid physical damage to containers.
 - Use good occupational work practice.
 - Observe manufacturer's storage and handling recommendations contained within this SDS.

Other information

- 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 storage and handling recommendations contained within this SDS.
- Store below 25 deg.C.

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Conditions for safe storage, including any incompatibilities

Suitable container

- Glass container is suitable for laboratory quantities
- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid storage with oxidisers

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|------------|---------------|-----------------------|---------------|---------------|---------------|
| Australia Exposure Standards | ethanol | Ethyl alcohol | 1000 ppm / 1880 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | glycerol | Glycerin mist | 10 mg/m3 | Not Available | Not Available | Not Available |

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|-----------------|--------------------------------------------------------------------------|---------------|---------------|-----------|
| ethanol | Ethyl alcohol; (Ethanol) | Not Available | Not Available | 15000 ppm |
| povidone-iodine | Poly(1-(2-oxo-1-pyrrolidinyl)ethylene)iodine complex; (Iodine solutions) | 3.8 mg/m3 | 42 mg/m3 | 250 mg/m3 |
| glycerol | Glycerine (mist); (Glycerol; Glycerin) | 45 mg/m3 | 860 mg/m3 | 00 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|-----------------|-----------------|---------------|
| ethanol | 3,300 [LEL] ppm | Not Available |
| povidone-iodine | Not Available | Not Available |
| buffer | Not Available | Not Available |
| glycerol | Not Available | Not Available |
| water | Not Available | Not Available |

Exposure controls

Appropriate engineering controls

General exhaust is adequate under normal operating conditions.

Personal protection



PPE Gloves



PPE Suit



PPE Shoes



PPE Mask

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Eye and face protection

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 lenses 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], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

Hands/feet protection

No special equipment needed when handling small quantities.
OTHERWISE: Wear chemical protective gloves, e.g. PVC.
Stains may be removed with dilute sodium thiosulfate solution.

Body protection

See Other protection below

Other protection

Overalls.
Eyewash unit.

Recommended material(s)

GLOVE SELECTION INDEX

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|-------------------------|
| up to 10 x ES | A-AUS P2 | - | A-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | A-AUS / Class 1 P2 | - |
| up to 100 x ES | - | A-2 P2 | A-PAPR-2 P2 ^ |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Betadine ALCOHOLIC SKIN PREP 100ML, 500ML

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| Material | CPI |
|------------------|-----|
| BUTYL | C |
| NATURAL RUBBER | C |
| NATURAL+NEOPRENE | C |
| NEOPRENE | C |
| NITRILE | C |
| NITRILE+PVC | C |
| PE/EVAL/PE | C |
| PVA | C |
| PVC | C |
| VITON | C |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------|----------------|
| Appearance | Dark brown, clear flammable liquid with a slight odour of iodine; miscible with water. | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.99-1.01 |
| Odour | Not Available | Partition coefficient n-octanol /water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | 34 | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Flammable. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water (g/L) | Miscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

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SECTION 10 STABILITY AND REACTIVITY

| | |
|-------------------------------------------|---------------------------------------------------------------------------|
| Reactivity | See section 7 |
| Chemical stability | Product is considered stable and hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled | Not normally a hazard due to non-volatile nature of product Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea. Inhalation of vapour is more likely at higher than normal temperatures Not considered an irritant through normal use. |
| Ingestion | Ingestion may result in nausea, abdominal irritation, pain and vomiting |
| Skin Contact | 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. |
| Eye | This material can cause eye irritation and damage in some persons. |
| Chronic | Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents. Iodine and iodides cause goitre and diminished as well as increased activity of the thyroid gland. A toxic syndrome resulting from chronic iodide overdose and from repeated administration of small amounts of iodine is characterised by excessive saliva production, head cold, sneezing, conjunctivitis, headache, fever, laryngitis, inflammation of the bronchi and mouth cavity, inflamed parotid gland, and various skin rashes. Skin contact in rare instances can cause irritation during use. Chronic use may increase blood iodine levels leading to altered thyroid function. |

Betadine ALCOHOLIC SKIN PREP 100ML, 500ML

| TOXICITY | IRRITATION |
|---------------|---------------|
| Not Available | Not Available |

ethanol

| TOXICITY | IRRITATION |
|---------------------------------------------|-----------------------------------|
| Dermal (rabbit) LD50: 17100 mg/kg[1] | Eye (rabbit): 500 mg SEVERE |
| Inhalation (rat) LC50: 63926.976 mg/l/4h[2] | Eye (rabbit):100mg/24hr-moderate |
| Oral (rat) LD50: 7060 mg/kg[2] | Skin (rabbit):20 mg/24hr-moderate |
| | Skin (rabbit):400 mg (open)-mild |

povidone-iodine

| TOXICITY | IRRITATION |
|--------------------------------|----------------------------|
| Oral (rat) LD50: 5990 mg/kg[2] | Skin (rabbit): 500 mg mild |

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glycerol

| TOXICITY | IRRITATION |
|---------------------------------|---------------|
| Oral (rat) LD50: 12600 mg/kg[2] | Not Available |

water

| TOXICITY | IRRITATION |
|---------------|---------------|
| Not Available | Not Available |

Legend:

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified
data extracted from RTECS - Register of Toxic Effect of chemical Substances

GLYCEROL

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production. At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity.

WATER

No significant acute toxicological data identified in literature search.

ETHANOL & POVIDONE IODINE

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.

Acute Toxicity



Carcinogenicity



Skin Irritation/Corrosion



Reproductivity



Serious Eye Damage/Irritation



STOT - Single Exposure



Respiratory or Skin sensitisation



STOT - Repeated Exposure



Mutagenicity



Aspiration Hazard



Legend:

✗ - Data available but does not fill the criteria for classification

✓ - Data available to make classification

⊖ - Data Not Available to make classification

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SECTION 12 ECOLOGICAL INFORMATION

Toxicity

**Betadine ALCOHOLIC SKIN
 PREP 100ML, 500ML**

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---------------|--------------------|---------------|---------------|---------------|
| Not Available | Not Available | Not Available | Not Available | Not Available |

ethanol

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|----------|--------------------|-------------------------------|--------------|--------|
| LC50 | 96 | Fish | 42mg/L | 4 |
| EC50 | 48 | Crustacea | 2mg/L | 4 |
| EC50 | 96 | Algae or other aquatic plants | 17.921mg/L | 4 |
| NOEC | 2016 | Fish | 0.000375mg/L | 4 |

povidone-iodine

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|----------|--------------------|---------|------------|--------|
| NOEC | 0.08 | Fish | 3000.0mg/L | 4 |

glycerol

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|----------|--------------------|---------|---------|--------|
| LC50 | 96 | Fish | >11mg/L | 2 |

water

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---------------|--------------------|---------------|---------------|---------------|
| Not Available | Not Available | Not Available | Not Available | Not Available |

Legend

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|-----------------------------|----------------------------|
| ethanol | LOW (Half-life = 2.17 days) | OW (Half-life = 5.08 days) |
| glycerol | LOW | LOW |
| water | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------|----------------------|
| ethanol | LOW (LogKOW = -0.31) |
| glycerol | LOW (LogKOW = -1.76) |
| water | LOW (LogKOW = -1.38) |

Mobility in soil

| Ingredient | Mobility |
|------------|------------------|
| ethanol | HIGH (KOC = 1) |
| glycerol | HIGH (KOC = 1) |
| water | LOW (KOC = 14.3) |

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SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- 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 TRANSPORT INFORMATION

Labels Required



Marine Pollutant

NO

HAZCHEM

•2Y

Land transport (ADG)

UN number

1170

UN proper shipping name

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

Transport hazard class(es)

| | |
|---------|----------------|
| Class | 3 |
| Subrisk | Not Applicable |

Packing group

III

Environmental hazard

Not Applicable

Special precautions for user

| | |
|--------------------|---------|
| Special provisions | 144 223 |
| Limited quantity | 5 L |

Air transport (ICAO-IATA / DGR)

UN number

1170

UN proper shipping name

Ethanol or Ethanol. Solution

Transport hazard class(es)

| | |
|---------------------|----------------|
| ICAO/IATA Class | 3 |
| ICAO / IATA Subrisk | Not Applicable |
| ERG Code | 3L |

Packing group

III

Environmental hazard

Not Applicable

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| | | |
|------------------------------|-----------------------------------------------------------|-------------|
| Special precautions for user | Special provisions | A3 A58 A180 |
| | Cargo Only Packing Instructions | 366 |
| | Cargo Only Maximum Qty / Pack | 220 L |
| | Passenger and Cargo Packing Instructions | 355 |
| | Passenger and Cargo Maximum Qty / Pack | 60 L |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y344 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 10 L |

Sea transport (IMDG-Code / GGVSee)

| | | |
|----------------------------|--------------------------------------------------------------------|----------------|
| UN number | 1170 | |
| UN proper shipping name | HANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | |
| Transport hazard class(es) | IMDG Class | 3 |
| | IMDG Subrisk | Not Applicable |

| | | |
|------------------------------|--------------------|-----------|
| Packing group | III | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | EMS Number | F-E , S-D |
| | Special provisions | 144 223 |
| | Limited Quantities | 5 L |

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

ETHANOL(64-17-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

| | |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Australia Exposure Standards | Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix B (Part 3) |
| Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals | Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3) |
| Australia Inventory of Chemical Substances (AICS) | Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 |

POVIDONE-IODINE(25655-41-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

| |
|---------------------------------------------------|
| Australia Inventory of Chemical Substances (AICS) |
|---------------------------------------------------|

GLYCEROL(56-81-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

| | |
|------------------------------|---------------------------------------------------|
| Australia Exposure Standards | Australia Inventory of Chemical Substances (AICS) |
|------------------------------|---------------------------------------------------|

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WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

| National Inventory | Status |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inventory Status | Y |
| Canada - DSL | Y |
| Canada - NDSL | N (povidone-iodine; glycerol; ethanol; water) |
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | N (povidone-iodine) |
| Japan - ENCS | Y |
| Korea - KECI | Y |
| New Zealand - NZIoC | Y |
| Philippines - PICCS | Y |
| USA - TSCA | Y |
| Legend: | Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

SECTION 16 OTHER INFORMATION

Ingredients with multiple cas numbers

| Name | CAS No. |
|--------------|---------------------------------------------------------------------------------------------------------|
| ethanol | 64-17-5, 2348-46-1 |
| Canada - DSL | 56-81-5, 29796-42-7, 30049-52-6, 37228-54-9, 75398-78-6, 78630-16-7, 8013-25-0, 8043-29-6, 1400594-62-8 |

The 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.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average
 PC-STEL: Permissible Concentration-Short Term Exposure Limit
 IARC: International Agency for Research on Cancer
 ACGIH: American Conference of Governmental Industrial Hygienists
 STEL: Short Term Exposure Limit
 TEEL: Temporary Emergency Exposure Limitw
 IDLH: Immediately Dangerous to Life or Health Concentrations
 OSF: Odour Safety Factor
 NOAEL :No Observed Adverse Effect Level
 LOAEL: Lowest Observed Adverse Effect Level
 TLV: Threshold Limit Value
 LOD: Limit Of Detection
 OTV: Odour Threshold Value
 BCF: BioConcentration Factors
 BEI: Biological Exposure Index

END OF SDS

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