



FOX CHEMICALS

SAFETY DATA SHEET

Chemwatch Hazard Alert Code: 3

Section 1: Identification of the Substance and the Supplier.

Product Name: **Handsan**
Recommended use: Alcohol based hand sanitiser
Proper shipping name Ethanol solution (Ethyl alcohol solution)
Company details: Fox Chemicals NZ Ltd
Address: P.O. Box 5587, Papanui
Christchurch, 8542
Telephone number: +64 021 288 4822
Emergency Phone No: 0800 764 766 (0800 POISONL) for out of hours advice

Section 2: Hazards identification

Road and Rail Transport: Classified as a Dangerous Good under NZS 5433:2007 (Transport of Dangerous Goods on Land)

SIGNAL WORD: **DANGER**

Classification: Flammable liquid Category 2, Eye irritation Category 2

Legend: 1. Classified by chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 –Annex VI

HSNO classifications: 3.1 B Highly flammable liquid and vapour
6.4 A Causes eye irritation

ERMA NZ Approval: HSR 002528 Cleaning Products (Flammable) Group Standard



Hazard Statement(s):

H225 – Highly flammable liquid and vapour.
H319 – Causes serious eye irritation.



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Precautionary Statements

Prevention:

- P102 – Keep out of reach of children.
- P103 – Read label before use.
- P210 – Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233 – Keep container tightly closed.
- P240 – Ground/bond container and receiving equipment.
- P241 – Use explosion-proof electrical/ventilating/lighting equipment.
- P242 – Use only non-sparking tools.
- P243 – Take precautionary measures against static discharge.
- P280 – Wear protective gloves/protective clothing/ eye protection/face protection.

Response:

- P101 – If medical advice is needed, have product container or label at hand.
- P312 – Call a POISON CENTRE or doctor/physician if you feel unwell.
- P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 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.

P370+P378 – In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.

Storage

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

Disposal

P501 – Dispose of the product and packaging at an approved landfill or other approved facility. Avoid contamination of waterways. Do not use container for any other purpose.

Section 3: Information on Ingredients

Components	CAS Number	Proportion
Ethanol	64-17-5	70-80 %
Glycerine	56-81-5	1-5 %
Water	-	Balance to 100%



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Section 4: First Aid Measures

- First Aid:** Call a Doctor or National Poisons Centre 0800 POISON (0800 764 766) following first aid treatment.
- Skin Contact:** Wash off with plenty of water. Remove contaminated clothing and wash before re-use.
- Eye Contact:** Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do, continue rinsing.
Seek medical attention.
- Ingestion:** Rinse mouth, do **NOT** induce vomiting.
Seek medical attention IMMEDIATELY.
- Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing.

Medical attention and special treatment:

For acute or short repeated exposures to ethanol:

- Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to the prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K)
- Give 50% dextrose (50-100ml) 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 oxidising agents. i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Advice for Firefighters:



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Fire/Explosion Hazard:

- Liquid and vapour are highly flammable
- Severe fire hazard when exposed to heat, flame and/or oxidisers
- 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)

Combustion Products include:

- Carbon Dioxide (CO₂)

Other pyrolysis products typical of burning organic material.

Section 6: Accidental Release Methods

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 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:

- Personal Protective Equipment is contained in Section 8 of the SDS

Section 7: Handling and Storage

Safe handling:

- Containers, even those that have been emptied, may contain explosive vapours
- Do NOT cut, drill, weld or perform similar operations on or near containers
- Avoid all personal contact, including inhalation
- Wear protective clothing when risk of exposure occurs
- Use in a well-ventilated area
- Prevent concentration in hollows and sumps



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- **DO NOT enter confined spaces until atmosphere has been checked**
- Avoid smoking, naked lights, heat or ignition sources
- When handling, **DO NOT eat, drink or smoke**
- Vapour may ignite on pumping or pouring due to static electricity
- Earth and secure metal containers when dispensing or pouring product
- Use spark-free tools when handling
- Avoid contact with incompatible materials
- Keep containers securely sealed
- Avoid physical damage to containers
- Always wash hands with soap and water after handling
- Work clothes should be laundered separately
- Use good occupational work place practice
- Observe manufacture's storage and handling recommendations container 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 when 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 manufacture's storage and handling recommendation container within this SDS

Conditions for safe storage, including any incompatibilities

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 oxidising agents, acid, acid chlorides, acid anhydrides, chloroformates
- Avoid strong bases



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Section 8: Exposure controls/Personal protection

Control Parameters

Occupational Exposure Limits (OEL)

Ingredient Data

Source	Ingredient	Material Name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	Glycerol	Glycerin (mist)	10mg/m ³	N/A	N/A	N/A
New Zealand Workplace Exposure Standards (WES)	Ethanol	Ethyl Alcohol (Ethanol)	1000 ppm / 1880mg/m ³	N/A	N/A	N/A

Emergency Limits

Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
Glycerol	Glycerine (mist); (Glycerol; Glycerin)	45 mg/m ³	860 mg/m ³	2500 mg/m ³
Ethanol	Ethyl alcohol; (Ethanol)	N/A	N/A	15000 ppm

Ingredient	Original IDLH	Revised IDLH
Glycerol	Not Available	Not Available
Ethanol	3300 ppm	Not Available
Water	Not Available	Not Available

Exposure Controls

Appropriate engineering Controls	For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.
Personal Protection	
Eye and face protection	<ul style="list-style-type: none"> Safety glasses with side shields Chemical goggles
Skin protection	See hand protection below
Hands/feet protection	<ul style="list-style-type: none"> Wear chemical protective gloves, e.g. PVC Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See other protection below
Other protection	<ul style="list-style-type: none"> Overalls PVC Apron PVC protective suit may be required if exposure severe Eyewash unit Ensure there is ready access to a safety shower Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity



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- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets)
- Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoes with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electricity ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to the homes and return.

Section 9: Physical and Chemical Properties

Physical state:	Liquid
Colour:	Colourless
Solubility in water:	Partly miscible
Flammability	HIGHLY FLAMMABLE
Specific gravity:	0.8-0.9
Flash point (°C):	16°C Test Method: Closed cup
pH:	7

Section 10: Stability and Reactivity

Chemical Stability:	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Conditions to avoid:	See section 7.
Material to avoid:	Heat, flame, strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid.
Hazardous reactions:	Carbon dioxide and carbon monoxide may form when heated to decomposition.



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Section 11: Toxicological Information

Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this agent

Ingestion: Can cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhoea may also result in bleeding from the digestive tract.

Blood Concentration	Effects
<1.5g/L	Mild: Impaired vision, co-ordination and reaction time; emotional instability.
1.5-3.0 g/L	Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardised tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium. Central nervous system depression may progress to coma.
3-5 g/L	Severe: cold/clammy skin, low body temperature and low blood pressure. Atrial fibrillation and heart block may have been reported. Depression of breathing may occur, respiratory failure may follow serious poisoning, and choking on vomit may result in lung inflammation and swelling. Convulsions due to severe low blood sugar may also occur. Acute liver inflammation may develop.

Eye contact: Direct eye contact of the eye with ethanol (alcohol) may cause an immediate stinging and burning sensation, with reflex closure of the lid, and a temporary, tearing injury to the cornea together with redness or the conjunctiva. Discomfort may last 2 days but usually the injury heals without treatment.

Skin contact: Open cuts, abraded or irritated skin should not be exposed to



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this material.

Inhalation:

Inhalation of vapours irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness and possibly death

Long term effects:

Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Product	Toxicity	Irritation
Glycerol	Oral (rat) LD50:>10000 mg/kg ^[2]	Not Available
Ethanol	Inhalation (rat) LC50: 124.7 mg/l/4H ^[2]	Eye (rabbit): 500 mg Severe
	Oral (rat) LD50: mg/kg ^[2]	Eye (rabbit): 100mg/24hr-moderate
		Eye: adverse effect observed (irritating) ^[1]
		Skin (rabbit): 20 mg/24hr-moderate
		Skin (rabbit): 400 mg (open)-mild
		Skin: no adverse effect observed (not irritating) ^[1]

Legend: 1. Value obtained from Europe ECHA Registered Substances – Acute toxicity.

2. *Value obtained from manufactures SDS. Unless otherwise specified data extracted from RTECS – Register of Toxic Effect of chemical Substances.

Acute Toxicity:	X	Carcinogenicity:	X
Skin Irritation/Corrosion	X	Reproductively	X
Serious Eye Damage/Irritation	X	STOT – Single Exposure	X
Respiratory or Skin Sensitisation	X	STOT – Repeated Exposure	X
Mutagenicity	X	Aspiration Hazard	X

Legend: X – Data either not available or does not fill the criteria for classification.

X – Data available to make classification.



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Section 12: Ecological information

Toxicity

Product	Endpoint	Test Duration	Species	Value	Source
Glycerol	LC50	96	Fish	>0.011-mg/L	2
	EC50	96	Algae or other aquatic plants	77712.039mg/L	3
Ethanol	LC50	96	Fish	11-mg/L	2
	EC50	48	Crustacea	2mg/L	4
	EC50	96	Algae or other aquatic plants	17.921mg/L	4
	NOEC	2016	Fish	0.000375mg/L	4
Legend	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances – Ecotoxicological Information – Aquatic Toxicity 3. EPIWIM Suite V3.12 (QSAR) – Aquatic Toxicity Data (estimated) 4. US EPA, Ecotox database – Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Data 6. NITE (Japan) – Bioconcentration Data 7. METI (Japan) – Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Glycerol	LOW	LOW
Ethanol	LOW (half-life = 2.17 days)	LOW (Half-life = 5.08 days)
Water	LOW	LOW

Bioaccumulative Potential

Ingredient	Bioaccumulation
Glycerol	LOW (logKOW = -1.76)
Ethanol	LOW (logKOW = -0.31)
Water	LOW (LogKOW = -1.38)

Mobility in soil

Ingredient	Mobility
Glycerol	HIGH (KOC = 1)
Ethanol	HIGH (KOC = 1)
Water	LOW (KOC = 14.3)



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Section 13: Disposal considerations

Product/Packaging disposal

- Containers may still present a chemical hazard/danger when empty.
- Return to supplier for reuse/recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- Where possible retain label warnings and SDS and observe all notices pertaining to the product.
- **DO NOT allow wash water from cleaning or process equipment to enter drains.**
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licensed to accept chemical and/or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).
- Decontaminate empty container. Observe all label safeguards until containers are cleaned and destroyed.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017.



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Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned pit from the package. The package must be disposed according to the manufacture's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

DO NOT deposit the hazardous substance into or onto a landfill or a sewage facility. Burning the hazardous substance must happen under controlled conditions with no person or place exposed to

(1) A blast overpressure of more than 9 kPa; or

(2) An unsafe level of heat radiation

The disposed hazardous substance must not come into contact with class 1 or 5 substances.

Section 14: Transport information

Road and Rail Transport: Classified as a Dangerous Good under NZS 5433:2007 (Transport of Dangerous Goods on Land)

Marine, Air Transport: Similar listing as for Road and Rail Transport apply

UN No.: 1170 **Proper Shipping Name:** Ethanol (Ethyl Alcohol) or Ethanol Solution (Ethyl Alcohol Solution)

DG Class(es): 3 **Packing Group:** III **Hazchem:** 2(Y)E

Section 15: Regulatory Information

ERMA NZ Approval: HSR 002528 Cleaning Products (Flammable) Group Standard

ERMA NZ Approval: HSR 002553 Denatured Ethanol Group Standard 2017

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of Substance	Quantities
3.1B	250 L (when in containers greater than 5 L) 500 L (when in containers up to and including 5 L)

Refer Group Standard for further information.



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Tracking Requirements

Not Applicable.

New Zealand Inventory Status

National Inventory	Status
New Zealand - NZIoC	Yes

Section 16: Other information

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

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 or use and current or available engineering controls must be considered.

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 Limit

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

Disclaimer: This SDS summarises our best knowledge at the date of issue, the chemical health and safety limits of the material and general guidance on how to safely handle the material in the workplace. Since Fox Chemicals cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.