

SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **HAND SANITISER**

UN NUMBER:

PRODUCT USE: Personal hygiene

SUPPLIER: Bio-San Solutions Limited
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Tower Junction
Christchurch 8149
Telephone: +64 7 870 2024

24 HOUR EMERGENCY CONTACT: 0800 764 766 (National Poisons Centre)

DATE OF PREPERATION: 2 April 2020 Revision 1

Section 2: HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

This product is HAZARDOUS IN THIS FORM AND AT THIS STRENGTH.

Ethanol >50% in a non-hazardous diluent: Classification 3.1B & 6.4A

Handle correctly and as directed by this SDS.

HAZARD LABELLING WARNING



HAZARD CLASSIFICATION AND STATEMENTS

HSNO	HSNO	GHS	Signal Word	GHS Hazard Statement
3.1B	Flammable Liquid: High Hazard	Cat 2: Flammable Liquids	Danger	H225 Highly flammable liquid and vapour
6.4A	Irritating to the eye	Cat 2: Serious eye damage/eye irritation	Warning	H319 Causes serious eye irritation

Prevention Statements:

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/ventilation/lighting/pumps

P242: Use only non-sparking tools

P243: Take precautionary measures

P264: Wash hands thoroughly after handling.

P273: Avoid release to the environment

P280: Wear protective gloves/protective clothing/eye protection

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

COMPOSITION

NAME	CAS NUMBER	% w/w	HAZARDOUS
Water (micro-filtered)	7732-18-5	29	No
Ethanol (Ethyl Alcohol)	64-17-5	70	Yes 3.1B; 6.1E; 6.4A; 6.8B; 6.8C; 6.9A
Trace Ingredients		1	
<i>Sodium carboxymethylcellulose</i>	<i>9004-32-4</i>		Yes 9.1C
<i>Sorbitol</i>	<i>50-70-4</i>		Yes 6.1D
<i>Vanilla</i>			
<i>Dye Blue</i>	<i>3844-45-9</i>		Yes 6.3B; 6.4A

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Section 4: FIRST AID MEASURES

Swallowed: Do not induce vomiting unless directed to do by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie belt or waistband. If large quantities of this material are swallowed, call a physician immediately.

Skin: In case of contact immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if symptoms appear.

Eye: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes keeping eyelids open. Cold water may be used. Get medical attention if symptoms occur.

Inhaled: If inhaled remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

Workplace Facilities: Eyewashes and running water.

Notes for Medical Personnel: Support respiratory and cardiovascular function.

Section 5: FIRE FIGHTING MEASURES

Type of Hazard: Highly flammable liquid.

Fire Hazard Properties: Severe fire hazard when exposed to Oxidisers. May form flammable vapour mixtures with air. Avoid all ignition sources. Can be considered a severe explosion hazard when exposed to heat, flame and / or oxidisers. Intrinsically safe equipment necessary in areas where chemical is being used. Nearby equipment must be earthed. Vapour may travel considerable distance to source of ignition and flash back. On combustion, may release toxic fumes of carbon monoxide (CO).

Extinguishing Media & Methods:

Small fire: Use Dry Chemical Powder.

Large Fire: Use foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Water fog (or if not available fine water spray)

Section 6: ACCIDENTAL RELEASE MEASURES

Procedures to be covered: Shut off all possible sources of ignition. Clear area of all unprotected personnel. Wear protective equipment to prevent skin and eye contamination, and inhalation of vapours. Contain. Do not allow chemical to enter confined spaces such as sewers due to explosion risk.

Small spill or leak (230 litres or less): Dilute with water and mop up, or absorb with an inert dry material (soil, sand or other inert material).

Major spills (> 230 litres): Clear area of personnel and move upwind. Alert fire brigade; explain location and nature of hazard. Ethyl Alcohol may be violently or explosively reactive. Wear breathing apparatus and protective clothing. Prevent from any means available, spillage from entering drains or water-courses. Consider evacuation. No smoking, naked lights or ignition sources. Increase ventilation. Stop leaks if safe to do so. Water vapour or fog may be used to disperse 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.

Section 7: HANDLING AND STORAGE

Handling Practices: Avoid breathing vapours or spray mists. Use only with adequate ventilation. Keep container closed. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion proof electrical (ventilating, lighting and material handling) equipment.

Store Site Requirements: Store in a segregated and approved area. Keep container in a cool, well-ventilated area away from sunlight. Store away from oxidising agents, such as alkali metals, acids, acid chlorides, ammonia, and potassium tert-butoxide. In case of flexible tubing usage, check with manufacturer to find product compatibility. Keep container tightly closed and sealed until ready for use. Check regularly for leaks. Avoid all possible sources of ignition (spark or flame).

Packaging: Aluminium is not a suitable container for package.

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Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Standards: Threshold Limit Value – Time weighted Average (TLV – TWA) 1000ppm 1880mg/m³ (Ethanol) (As published by New Zealand Occupational Safety and Health Service – OSH)

Odour Threshold 350ppm (Ethanol).

Engineering Controls: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing organic vapour respirator. Vapour heavier than air – prevent concentrations in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use. Earth all containers to reduce the possibility of sparks from static electricity.

Personal Protective Equipment (PPE): SKIN: Wear appropriate clothing to prevent repeated or prolonged skin contact. Gloves made of butyl rubber, Nitrile plus PVC, or PVC. **EYES:** Wear approved chemical safety goggles or Safety Glasses with side shields. It would be advisable not to use contact lenses when working with this chemical as soft lenses may absorb irritants, and all lenses will concentrate vapours on the surface of the eye. **INHALATION:** Wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS1716.



Section 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Blue viscous liquid

PHYSICAL PROPERTIES

PROPERTY	VALUE
State	Viscous liquid
Odour	Slight vanilla
Molecular Weight	
Melting Range (°C)	
Boiling Range (°C)	
Solubility in water (g/L, 20°C)	
pH (saturated solution)	
pH (as supplied)	
Specific Gravity (water = 1)	0.88
Relative Density (23°C)	
Volatile Component	
Relative Vapour Density (air = 1)	
Vapour Pressure (kPa)	
Autoignition Temp (°C)	
Flash Point (°C)	
Lower Explosive Limit (%)	
Upper Explosive Limit (%)	
Decomposition Temp (°C)	
Viscosity	
Evaporation Rate	

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Section 10: CHEMICAL STABILITY AND REACTIVITY

Stability of the Substance: The product is stable. It is hygroscopic.

Conditions to avoid: Sparks, open flames, heat and other sources of ignition.

Material to avoid: Reactive with oxidising agents, alkali metals, acids, acid chlorides, ammonia, and potassium tert-butoxide. Aluminium containers should be avoided as aluminium alcoholates may be formed under certain conditions.

Hazardous Decomposition Products: Not applicable because product is stable.

Hazardous Polymerization: Will not occur.

Section 11: TOXICOLOGICAL INFORMATION

Data and interpretation: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled and over exposure occurs are:

Acute Effects:

Swallowed: Swallowing can result in nausea, vomiting, dizziness, fatigue, headache and central nervous system depression. If the victim is uncoordinated there is a greater likelihood of vomit entering the lungs and causing subsequent complications.

Skin: Contact with skin will result in mild irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Eye: Is an eye irritant. HSN classification, 6.4A – Eye Irritant.

Inhaled: Vapour may be an irritant to the mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness, fatigue and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can contribute to loss of coordination, impaired judgement and, if exposure is prolonged, unconsciousness.

Long Term Effects: Evidence from animal tests and studies on exposed humans indicate that repeated or prolonged exposure to this chemical could result in liver damage.

Acute Toxicity:

Acute oral toxicity (LD50); 7060 mg/kg (Rat) (Ethanol)

Acute toxicity of the vapour (LC50); 66,000ppm 4 hours (Rat) (Ethanol)

Chronic Toxicity:

Carcinogenic Effects: There is no clear evidence that ethanol is carcinogenic to laboratory animals. It is however a tumour promoter.

Mutagenic Effects: Ethanol itself is not mutagenic, but its metabolite acetaldehyde is mutagenic.

Developmental Effects: Oral exposure to ethanol produces malformations and developmental toxicity in rats and mice at maternally toxic doses. Ethanol is equally phototoxic in experimental animals by inhalation or oral exposure.

Section 12: ECOLOGICAL INFORMATION

Potential Environmental Considerations: Ethanol is harmful to aquatic life. Ethanol has a low potential for bioaccumulation and is substantially biodegradable in water.

Ecotoxicity in water:

(LC50) 13,000mg/l 96 hours (Trout)

(LC50) 15,300 mg/L 96 hours (Fathead Minnow)

(LC50) 250ppm 8 hours (Goldfish) (Ethanol)

Products of Degradation: Formaldehyde and Acetic Acid. The products of degradation are more toxic than ethanol.

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Section 13: DISPOSAL CONSIDERATIONS

Disposal Information: Can be disposed of in Sewerage treatment facility provided it is first diluted with sufficient water to bring the mixture below the flammable threshold (less than 3% ethanol by volume) i.e. to raise the flashpoint above 93°C. This requirement is included to ensure that flammable substances do not collect in pockets of sewerage collection system with resultant fires or vapour explosions. Large volumes may be suitable for re-distillation by solvent contractors.

Container Disposal: Empty containers may contain hazardous residues. Labels should not be removed from containers until they have been appropriately cleaned. Do not cut, puncture or weld on or near to the containers. Containers should be cleaned by approved methods and then re-used or disposed of by approved landfill. After cleaning, all existing labels should be removed. Do not incinerate closed containers.

Section 14: TRANSPORT INFORMATION

Hazard Class: 3.1B; 6.4A

UN-No: UN1170

Packing Group: II

Hazchem Code: 2(Y)E

Proper Shipping Name: Ethanol (Ethyl Alcohol).

Segregation: Not to be loaded with explosives (Class 1), Flammable gasses (Class 2.1). If both are in bulk, toxic gasses (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

Ethanol is classified as Dangerous Goods and must comply with the Land Transport Rule: Dangerous Goods 2005, and NZS 5433: 1999 Transport of Dangerous Goods on Land.



Marine: Classified as Dangerous Goods by International Marine Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport: Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA). Dangerous Goods Regulations for transport by air.

Section 15: REGULATORY INFORMATION

HSNO Classifications:

3.1B (Highly Flammable Liquid and Vapour)

6.1E (May be Harmful if Swallowed)

6.4A (Causes Eye Irritation)

6.8B (Suspected of Damaging Fertility or the Unborn Child)

6.9B (Harmful to human target organs or systems)

HSNO Controls:

Trigger quantities for this substance by itself in a place:

- **Location Test Certificate:**
 - 50 litres (open container)
 - 100 litres (closed container > 5L)

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- 250 litres (closed container ≤ 5L)
- **Hazardous Atmosphere Zone:**
 - 1 litre (open continuously)
 - 5 litres (open occasionally)
 - 25 litres (decanting)
 - 100 litres (closed containers)
- **Signage:** 250 litres
- **Emergency Plan:** 1000 litres

Tracking: Not applicable

Section 16: OTHER INFORMATION

Interpretation and Abbreviations

Controls applying to a substance:

- * denotes that changes have been made to these controls, further information on these changes is located in the transfer notice for that substance,
- (R) abbreviation for the term Regulation of the Hazardous Substances regulations

IARC – International Agency for Research on Cancer.

LOEL – Lowest Observed Effect Level.

LD_{LO} – Lethal Dose Low (the lowest dosage per unit of bodyweight of a substance known to have resulted in fatality in a particular animal species).

MAK – Maximum workplace concentration in the workplace air that generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance when a person is repeatedly exposed during long periods, usually 8 hours daily, 40hour working week).

NZIoC – New Zealand Inventory of Chemicals.

PEL – Permissible exposure limit.

PPE – Personal Protective Equipment.

STEL – Short term exposure limit.

TOC – Total Organic Carbon.

TSCA – US Toxic Substances Control Act Existing Chemicals.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

Date of Preparation/Review: 2 April 2020

Sources of key data used to compile the datasheet:

Manufacturers SDS

NZ EPA CCID

Health and Safety at Work (Hazardous Substances) Regulations 2017

Hazardous Substances (Minimum Degrees of Hazard) Notice 2017

Hazardous Substances (Safety Data Sheets Notice 2017

Hazardous Substances (Classification) Notice 2017

Labelling of Hazardous Substances Technical Guide 2012

DISCLAIMER

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END OF SDS