Safety Data Sheet

Hazardous, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: ISO Shield

Recommended use: Ethyl alcohol solution

Supplier: Pacific Hygiene Limited
Street Address: 51 Arrenway Drive, Albany
(PO Box 305 503, Triton Plaza, North Shore 0757)
Auckland
New Zealand
Telephone: (64-9) 477 5700
Facsimile: (64-9) 476 3602
Email: brad.blake@pacifichygiene.com

Emergency Telephone number: (64-9) 477 5700

2. HAZARDS IDENTIFICATION

This material is hazardous according to the criteria of EPA New Zealand GHS 7.

EPA Group Standard: HSR002528 - Cleaning Products (Flammable) Group Standard 2020

Signal Word
Danger

Hazard Classifications
Flammable Liquids - Category 2
Serious Eye Irritation - Category 2B

Hazard Statements

H225	Highly flammable liquid and vapour.
H320	Causes eye irritation.

Prevention Precautionary Statements

P103	Read carefully and follow all instructions.
P210	Keep away from heat, sparks, open flames, hot surfaces and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting and all other equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P264	Wash hands, face and all exposed skin thoroughly after handling.
P280	Wear protective gloves and protective clothing including eye protection.

Response Precautionary Statements

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P370+P378	In case of fire: Use carbon dioxide (CO2), dry chemical, foam, water fog, alcohol resistant foam or water spray to extinguish.
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.

Storage Precautionary Statement

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

Disposal Precautionary Statement

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 3

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Ethanol	64-17-5	60 - 90 %
Ingredients determined to be non-hazardous		Balance
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove person from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical assistance if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination, it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious person. If vomiting occurs give further water. Seek medical assistance.

PPE for First Aiders: Wear gloves and safety glasses. Available information suggests that gloves made from butyl rubber and nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically

5. FIRE FIGHTING MEASURES

Hazchem Code: •2YE

Suitable extinguishing media: If material is involved in a fire use carbon dioxide (CO^2), dry chemical, foam, water fog, alcohol resistant foam or fine water spray.

Specific hazards: Highly flammable liquid and vapour. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

Fire fighting further advice: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and full protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust (from dried product). Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). If spill is too large or if absorbent material is unavailable, try to create a dike to stop material spreading or going into drains or waterways. Use a spark-free shovel. Any equipment capable of building an electrostatic charge should be electrically grounded. Collect and seal in properly labelled containers or drums for disposal. Dispose of waste according to the applicable local and national regulations. If contamination of crops, sewers or waterways has occurred advise local emergency services. Thoroughly launder protective clothing before storage or reuse.

Dangerous Goods - Initial Emergency Response Guide No: 127

7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Wear protective clothing when risk of exposure occurs. When handling, DO NOT, eat drink or smoke. Keep containers closed at all times. If transfer to another container becomes necessary, ensure that the container is clearly labelled, is of a suitable type for the product and is clean and free of other materials. Always use clean, dry equipment to dispense product. All dispensers should be washed out after use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered prior to reuse.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 3 Flammable Liquid as per the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and/or the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Ethanol (Ethyl alcohol)	1000.00	1880.00			oto

As published by WorkSafe New Zealand.

WES-TWA (Workplace Exposure Standard - Time-weighted average). The average airborne concentration of a substance calculated over an eight-hour working day.

WES-Ceiling (Workplace Exposure Standard - Ceiling). A concentration that should not be exceeded at any time during any part of the working day.

WES-STEL (Workplace Exposure Standard - Short-term exposure limit). The 15-minute time weighted average exposure standard. Applies to any 15-minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Exposures at concentrations between the WES-TWA and the WES-STEL should be less than 15 minutes, should occur no more than four times per day, and there should be at least 60 minutes between successive exposures in this range.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the WorkSafe New Zealand the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: GLOVES, SAFETY GLASSES

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear gloves and safety glasses. No special skin protection is necessary. However, it is recommended that gloves are used to avoid contact with any chemical products when skin contact is likely. Available information suggests that gloves made from butyl rubber and nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Clear, colourless
Odour:	Characteristic

Solubility:	Completely soluble in water
Specific Gravity:	0.84 - 0.86
Flash Point (°C):	approx. 13ºC
Explosion/Flammability Limits:	3.5% (ethanol) - 19% (ethanol)
Melting Point/Range (°C):	approx. -29ºC
Boiling Point/Range (°C):	< 100ºC at 100kPa
pH:	6.5 - 7.5
Evaporation Rate (n-Butyl acetate=1):	>1
Total VOC (g/Litre):	Completely volatile @ 100ºC

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Avoid heat, sparks, open flames, hot surfaces and other ignition sources. This product should be kept in a cool place, preferably below 30ºC.

Incompatible materials: Strong oxidising agents

Hazardous decomposition products: Combustion forms carbon monoxide and if incomplete, carbon monoxide and possibly smoke. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment and unconsciousness followed by coma and death.

Hazardous reactions: This product will not undergo polymerisation reactions.

11. TOXICOLOGICAL INFORMATION

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

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in a range of effects from intoxication, euphoria, dizziness, blurred vision and fatigue to harmful central nervous system effects including loss of consciousness, coma, respiratory arrest and death.

Eye contact: Contact with eyes causes eye irritation.

Acute toxicity

Inhalation: This material has been classified as not hazardous for acute inhalation exposure.

Skin contact: This material has been classified as not hazardous for acute dermal exposure.

Ingestion: This material has been classified as not hazardous for acute ingestion exposure.

Corrosion/Irritancy: Eye: this material has been classified as a Category 2B Hazard (reversible effects to eyes). Causes eye irritation. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as not an aspiration hazard.

Specific target organ toxicity (single exposure): This material has been classified as not a specific hazard to target organs by a single exposure.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Ecotoxicity in the soil environment: This material has been classified as non-hazardous.

Ecotoxicity to terrestrial vertebrates: This material has been classified as non-hazardous.

Ecotoxicity to terrestrial invertebrates: This material has been classified as non-hazardous.

Ecotoxicity: Expected to be toxic to aquatic species.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible, material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

UN No:	1170
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	•2YE
Emergency Response Guide No:	127
Limited Quantities	1 L
Proper Shipping Name:	ETHYL ALCOHOL SOLUTION

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2), toxic substances (Class 6.1), infectious substances (Class 6.2) or radioactive substances (Class 7). Exemptions may apply.

MARINE TRANSPORT
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No:	1170
Dangerous Goods Class:	3
Packing Group:	II
Proper Shipping Name:	ETHYL ALCOHOL SOLUTION

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

UN No:	1170
Dangerous Goods Class:	3
Packing Group:	II
Proper Shipping Name:	ETHYL ALCOHOL SOLUTION

15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:

NZ EPA Status: All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

AIICS Status: All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).

EPA Group Standard: HSR002528 - Cleaning Products (Flammable) Group Standard 2020

16. OTHER INFORMATION

Reason for issue:	5 Yearly Revision
Supersedes:	May-2020
Review by:	3-Jan-2030

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer, it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.