



SAFETY DATA SHEET

PRODUCT NAME: ETHANOL 99%

Issue Date: February 24

SECTION 1: IDENTIFICATION

Product Name: Ethanol 99%
Other Names: Methanol Spirit WP, Ethyl Alcohol, Denatured Alcohol
Product Code: ZETHAN99, CETHA9920, CETHA994
Uses: Used for manufacturing chemicals such as lacquer thinners, industrial and domestic cleaners, solvents, antifreeze, and fuel. Industrial use only.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 07 974 4971 Web: www.hamchem.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

SECTION 2: HAZARD IDENTIFICATION



GHS Classifications

Flammable Liquid – Category 2

Eye Irritation – Category 2

Reproductive Toxicity – Category 2

Specific Target Organ Toxicity (Repeated Exposure) – Category 2

Signal Word: Danger

Hazard Statements

H225 – Highly flammable liquid and vapour.

H319 – Causes serious eye irritation.

H361 – Suspected of damaging fertility or the unborn child.

H373 – May cause damage to organs (liver, eyes) through prolonged or repeated exposure via inhalation or ingestion.

Prevention

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

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 equipment.

P242 – Use non-sparking tools.

P243 – Take action to prevent static discharges.

P260 – Do not breathe fume/gas/mist/vapours/spray

P264 – Wash hands thoroughly after handling

P280 – Wear protective gloves/clothing and eye/face protection

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Response

P101 – If medical advice is needed, have product container or label at hand.

P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do so. Continue rinsing.

P337 + P308 + P313 – If eye irritation persists or if exposed or concerned: Get medical advice/attention.

P370 + P378 – In case of fire: Use water fog or alcohol-resistant foam to extinguish.

Storage

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

P405 – Store locked up.

Disposal

P501 – Dispose of contents/container to approved landfill in accordance with any local regulations.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

Mixture: Denatured Alcohol

Chemical Entity	CAS No.	Proportion (%w/w)
Ethanol	64-17-5	98%
Water	7732-18-5	<1%
Denaturants (Methanol)	67-56-1	2%

SECTION 4: FIRST AID MEASURES

Consult the National Poisons Centre 0800 764 766 (0800 POISON) or a Doctor in every case of suspected poisoning. If medical advice is needed, have product container or label at hand.

If swallowed: Rinse mouth with water. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a Poison Centre or Doctor for advice.

If on skin: Remove immediately all contaminated clothing. Wash affected area with plenty of water followed by soap and water.

If inhaled: Move person to fresh air and keep warm and at rest until recovered. Call a Poison Centre or Doctor for advice or take to local medical facility if recovery is not rapid.

If in eyes: Hold eyes open and rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do so after the first 5 minutes. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists.

Note to Physician: Treat symptomatically. Causes central nervous system depression.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 13°C

Flammability Limits: LFL = 2% v/v, UFL = 12% v/v

Extinguishing Media: Use water fog or alcohol-resistant foam. Use dry chemical powder, carbon dioxide, sand, or earth for small fires only. Do NOT use water in a jet.

Fire & Explosion Hazards: In case of fire, avoid breathing smoke. Smoke may contain toxic oxides of carbon.

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Specific Hazards: This product is highly flammable. Remove containers from path of fire if safe to do so. Cool fire exposed containers with large quantities of water.

Fire-Fighting Equipment: Wear self-contained breathing apparatus and personal protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills: Highly flammable liquid. Vapours forms explosive mixtures with air. Isolate hazardous area and keep unnecessary and unprotected people away from area. Stay upwind and keep out of low-lying areas. Wear personal protective equipment. Avoid contact with skin and eyes. Shut off leak if safe to do so. Remove or isolate ignition sources. Contain spill. Avoid run off into drains or sewers. Do not contaminate watercourses or the ground. Take precautions against static discharge. Bond or ground (earth) all equipment. Ventilate contaminated area. For large spills (more than a drum), recover liquid and transfer by mechanical means to labelled salvage tank that can be sealed for recovery or disposal of product. Do not flush residues away with water. Allow residues to evaporate. Remove any contaminated soil and dispose of safely by waste management company. For small spills, absorb with an appropriate material, e.g. vermiculite, and dispose of waste safely in a labelled, sealed container for recovery or disposal. If contamination of drains, sewers or waterways occurs, immediately notify Emergency Services (111).

Disposal: Dispose of contaminated waste or product to an approved landfill in accordance with local regulations.

SECTION 7: HANDLING & STORAGE
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Handling: Read label before use. Use only in well-ventilated areas. Avoid breathing vapours or direct contact with product. Wear personal protective equipment. Remove ignition sources. Avoid sparks. Electrostatic discharge may be generated during pumping with risk of fire. Restrict line viscosity to avoid generation of electrostatic discharge ($\leq 1\text{m/sec}$ until fill pipe submerged to twice its diameter, then $\leq 7\text{m/sec}$). Take precautions to use bonded or grounded (earthed) equipment. No smoking. Do not use compressed air for filling, discharging, or handling. Keep container closed when not in use. Wear personal protective equipment to prevent breathing of and contact with product. Wear gloves and protect eyes from splashes. Wash hands and exposed skin after handling.

Storage: Ensure all storage areas have adequate fire-fighting equipment. Store in closed original container in a secure, cool, dry, well-ventilated place. Store away from sunlight, ignition sources, heat, incompatible substances, aerosols, other flammables, oxidizing agents, and corrosive substances. Keep out of reach of children. Store away from food, drink, and animal foodstuffs. The vapour of this product is heavier than air, take precautions to avoid accumulation in pits and confined spaces.

Containers: For containers or container linings, use mild steel or stainless steel. For container paints, use epoxy paint or zinc silicate paint.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards: NZ Workplace Exposure Standards (WES) have been set for these substances:

Substance	TWA (ppm)	TWA (mg/m ³)	STEL (ppm)	STEL (mg/m ³)
Ethanol	1000	1880	-	-
Methanol	200	262	250	328

Engineering controls: Use only in a well-ventilated area. A half-face filter mask suitable for organic gases and vapours (boiling point $<65^{\circ}\text{C}$) is recommended. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use positive pressure breathing apparatus.

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Personal protective equipment: Wear protective clothing. Safety shoes and boots need to be chemical resistant. Wear appropriate chemical resistant gloves, e.g., butyl rubber and natural rubber. Neoprene rubber and Viton may be suitable for splash or incidental contact. Avoid contact with eyes. Wear chemical goggles if splash or aerosol/mist exposure risk. Refer to the relevant AS/NZ standards for appropriate personal protective equipment.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Clear, colourless
Odour:	Strong, pungent, alcohol like
Odour Threshold:	Not available
Freezing/Melting Point:	Not available
Boiling Point:	78°C
Flammability (solid, gas):	Not applicable
Flash Point:	Closed cup, 13°C
Flammability Limits:	LFL 2% v/v, UFL 12% v/v
Autoignition Temp:	392°C
Decomposition Temp:	Not available
Vapour Pressure:	57 Pa at 20°C
Density (20°C):	0.79
Solubility:	Completely miscible
pH:	Not applicable
Vapour Density (air =1):	1.59
Partition Coefficient:	Not available (n-octanol/water)
Kinematic Viscosity:	Not available
Evaporation Rate (nBuAc = 1):	2.53
Particle Characteristics:	Not applicable

SECTION 10: STABILITY & REACTIVITY

Stability (conditions to avoid): Stable under normal storage and use conditions. Avoid heat, sparks, open flames and other ignition sources.

Incompatibility (materials to avoid): Strong oxidizing agents and strong acids.

Hazardous Decomposition Products: Dependent on conditions under which decomposition (combustion, thermal or oxidative degradation) occurs. A complex mixture of airborne solids, liquids, and gases (carbon monoxide, carbon dioxide) will be evolved.

Hazardous Polymerisation: Not known to occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects: This section includes possible adverse effects, which might occur if this product is not handled in the recommended manner.

Acute Exposure:

Toxicity Data: Oral, Rat, LD₅₀ > 2000 mg/kg
Dermal, LD₅₀ > 2000 mg/kg
Inhalation, LC₅₀ > 20 mg/L in air (vapour)

Ingestion: May be harmful if swallowed in large quantities. May cause symptoms of inebriation, drowsiness, nausea, and vomiting.

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Inhalation: Avoid inhalation of vapours, sprays, or mist. May cause mild irritation to respiratory system with coughing. High concentrations may cause central nervous system depression resulting in headaches, dizziness, and nausea.

Skin Corrosion/Irritation: Product is not classified as a skin corrosive or irritant. Prolonged or repeated contact may cause defatting of the skin which could then lead to dermatitis.

Serious Eye Damage/Eye Irritation: Product does not cause serious eye damage. Product is an eye irritant. Symptoms can include burning sensation, redness, swelling, and/or blurred vision.

Respiratory or Skin Sensitisation: Product is not classified as a respiratory or skin sensitiser.

Chronic Exposure:

Mutagenicity (effects on genetic material): Not classified as a mutagen.

Cancer Information: Not classified as a carcinogen.

Teratology (birth defects) and Reproductive Effects: Classified as a reproductive toxicant. Causes fetotoxicity in animals at doses which are maternally toxic. Causes fetal alcohol syndrome.

Systemic Target Organ Toxicity, Single Exposure: No information available. Not expected to be a specific target organ toxicant by single exposure.

Systemic Target Organ Toxicity, Repeated Exposure: May cause damage to liver and eyes from prolonged or repeated exposure via inhalation or ingestion.

Aspiration Hazard: No information available. Not expected to be an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: This product has not been classified as being ecotoxic to the aquatic or terrestrial environments. LC/EC₅₀ > 100 mg/L.

Movement and Partitioning: Product is completely soluble in water.

Degradation and Persistence: Not expected to bio accumulate significantly and is readily biodegradable. Product is mobile in soil and may contaminate groundwater. Avoid contamination of drains and waterways. Oxidises rapidly by photo-chemical reaction in air.

Ecotoxicology: No EEL has been set for this substance.

Other adverse effects: None identified.

SECTION 13: DISPOSAL CONSIDERATIONS
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Recover and recycle product whenever possible. Dispose of waste in accordance with Regional Authority or local council bylaws. Ensure empty containers are vented and dry. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send clean dry drums to recycler or metal scrap reclaimer. Do not use empty drums for storing other products.

SECTION 14: TRANSPORT INFORMATION
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UN Number: 1987
Proper Shipping name: Alcohols, n.o.s. (denatured alcohol, contains methanol)
Dangerous Goods Class: 3

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Subsidiary Risk: -
Packing group: II
Hazchem Code: 3[Y]E

Ensure transportation methods prevent leakage from packages and collapsing loads.

SECTION 15: REGULATORY INFORMATION

HSNO Classifications: 3.1B, 6.4A, 6.8B, 6.9B

EPA Approval # HSR002553 Denatured Ethanol Group Standard 2020

Restrictions: In accordance with the Denatured Ethanol Group Standard 2020, ethanol that is denatured with methanol cannot be sold to the general public.

This substance is not required to be tracked as per Part 19 of the Health and Safety at Work (Hazardous Substances) Regulations 2017. All workplace personnel handling this substance are required to be trained on the safe handling and PPE requirements for the hazards associated with this substance.

SECTION 16: OTHER INFORMATION

Date of Preparation: 19 February 2024

Reason for revision: Update to meet requirements of EPA NZ SDS Notice.

References: EPA NZ Chemical Classification and Identification Database.
Denatured Ethanol Group Standard 2020

Key to abbreviations:

CAS No. Chemical Abstracts Service Number
EPA Environmental Risk Management Authority
HSNO Hazardous Substances & New Organisms
STEL Short Term Exposure Limit
TWA Time Weighted Average
WES Workplace Exposure Standard

SDS reviewed by Simonne Moses, Responsible Care NZ.

End of SDS.