



SAFETY DATA SHEET

PRODUCT NAME: ETHANOL 99%

Issue Date: October 24

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.
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

HAZARD IDENTIFICATION



GHS Classifications

Flammable Liquid – Category 2
Acute Toxicity (Oral) – Category 4
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
H302 – Harmful if swallowed
H319 – Causes serious eye irritation
H361 – Suspected of damaging fertility or the unborn child
H373 – May cause damage to organs through prolonged or repeated exposure

Prevention

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
P280 – Wear protective gloves/clothing and eye/face protection
P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood

Recommendations, suggestions or statements made in the bulletins are intended for the assistance of our customers. They are based upon our experience and judgement but must not be regarded as amounting to a legal warranty or as involving any liability on our part and must be read in conjunction with and subject to our Conditions of Sale which apply to goods supplied by us.

HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: info@hamchem.nz Web: www.hamchem.nz

PRODUCT NAME:	ETHANOL 99%
----------------------	--------------------

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

Response

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

P314 – Get medical advice/attention if you feel unwell

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

P301 + P312 – IF SWALLOWED: Call a POISON CENTRE or Doctor if you feel unwell.

P330 – Rinse mouth

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 + P313 – If eye irritation persists: Get medical advice/attention

P308 + P313 – 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.

COMPOSITION & INFORMATION ON INGREDIENTS

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

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.

FIRE FIGHTING MEASURES

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.

Recommendations, suggestions or statements made in the bulletins are intended for the assistance of our customers. They are based upon our experience and judgement but must not be regarded as amounting to a legal warranty or as involving any liability on our part and must be read in conjunction with and subject to our Conditions of Sale which apply to goods supplied by us.

HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: info@hamchem.nz Web: www.hamchem.nz

PRODUCT NAME:	ETHANOL 99%
----------------------	--------------------

Fire & Explosion Hazards: In case of fire, avoid breathing smoke. Prevent extinguishing water from getting into the aquatic environment.

Specific Hazards: This product is highly flammable. Cool fire exposed containers with large quantities of water.

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

ACCIDENTAL RELEASE MEASURES

Spills: Highly flammable liquid. Vapour forms explosive mixture with air. Isolate hazard 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.

HANDLING & STORAGE

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.

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,

PRODUCT NAME:	ETHANOL 99%
----------------------	--------------------

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.

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.

PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Clear, colourless
Odour:	Strong, pungent, alcohol like
Boiling Point:	78°C
Flash Point:	Closed cup, 13°C
Flammability Limits:	LFL 2% v/v, UFL 12% v/v
Autoignition Temp:	392°C
Vapour Pressure:	57 Pa at 20°C
Specific Gravity:	0.79
Solubility:	Completely miscible
Flash Point:	Closed cup = 14°C
pH:	Not applicable
Vapour Density:	1.59
Evaporation Rate:	2.53

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.

TOXICOLOGICAL INFORMATION

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

Ingestion: May be harmful if swallowed.

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

Skin Contact: Mild skin irritant. Prolonged or repeated contact may cause defatting of the skin which could then lead to dermatitis.

Eye Contact: Irritating to eyes. Symptoms can include burning sensation, redness, swelling, and/or blurred vision.

PRODUCT NAME: ETHANOL 99%

Systemic (other target organ) Effects: No other effects noted.

Cancer Information: Not classified as a carcinogen.

Teratology (birth defects) and Reproductive Effects: Classified as 6.8 substance. Causes fetotoxicity in animals at doses which are maternally toxic.

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

Toxicity Data: Oral, Rat, LD50 – 7060mg/kg b.w.

ECOLOGICAL INFORMATION

Environmental Fate: This product has not been classified as being ecotoxic.

Movement and Partitioning: Product is miscible 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.

DISPOSAL CONSIDERATIONS

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.

TRANSPORT INFORMATION

UN Number: 1170
Proper Shipping name: Ethanol (Ethyl Alcohol) Solution
Dangerous Goods Class: 3
Subsidiary Risk: -
Packing group: II
Hazchem Code: 2[Y]E

REGULATORY INFORMATION

HSNO Classifications: 3.1B, 6.1E, 6.4A, 6.8B, 6.9B
EPA Approval # HSR002553 Denatured Ethanol Group Standard 2020

OTHER INFORMATION

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

End of SDS.

Recommendations, suggestions or statements made in the bulletins are intended for the assistance of our customers. They are based upon our experience and judgement but must not be regarded as amounting to a legal warranty or as involving any liability on our part and must be read in conjunction with and subject to our Conditions of Sale which apply to goods supplied by us.

HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: info@hamchem.nz Web: www.hamchem.nz