Safety Data Sheet

SMS 95 F4 (SMS 100 F4), Ethanol 99%

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND SUPPLIER

Product Name	**SMS 95 F4 (SMS 100 F4), Ethanol 99%**
Recommended Uses	Solvent
Supplier	Hygiene Technologies Ltd
Street address	28 Rangitane Road, Whakatu, Hastings 4172
Telephone Number	+64 6 876 4111 or 0800 732 525
Facsimile	+64 6 878 3802
Email	info@hygienetech.co.nz
Emergency Telephone	NZ Fire Service - 111 National Poisons Centre – 0800 764 766 (0800 POISON)

2. HAZARDS IDENTIFICATION

Dangerous Goods

This product is classified as a Dangerous Good according to the criteria of the "New Zealand NZS 5433: 2012 Transport of Dangerous Goods on Land".

Hazardous Substances

Classified as hazardous according to GHS New Zealand criteria.

SIGNAL WORD: **DANGER**



Pictograms

Flame; Exclamation Mark

Group Standard 2020

HSR002553 - Denatured Ethanol Group Standard

Hazard Statements

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.

Precautionary Statements
Prevention

P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, lighting and all other equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear eye and face protection.

Response

P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
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 attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

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

Disposal

P501 Dispose of contents and container to an approved waste disposal facility.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Proportion
Ethyl Alcohol	64-17-5	99%
Tertiary Butanol	75-65-0	0.25%
Non Hazardous Ingredients at the concentrations used.	-	Balance

4. FIRST AID MEASURES

For advice, contact National Poisons Information Centre (Phone 0800 764 766) or a doctor If medical advice is needed, have product container or label at hand.

Swallowed 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 patient. If vomiting occurs give further water. Seek medical advice.

Eye Contact If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor; or for at least 15 minutes and transport to doctor or hospital.

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 the affected area with water and remove any clothing that may be contaminated. 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.

Inhaled Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow the patient to assume their most comfortable position and keep them warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

PPE for First Aiders Wear safety shoes, overall, gloves and safety glasses.

Notes to physician Treat symptomatically. Refer to National Poisons and Hazardous Chemicals Information Centre 0800 764 766

5. FIRE-FIGHTING MEASURES

Hazchem Code: ●2YE

Suitable Extinguishing Media If material is involved in a fire use water fog (or unavailable fine water spray), alcohol resistant foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards 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 flashback. 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 suitable 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. 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). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 14

7. HANDLING AND STORAGE

Handling advice Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage advice 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 must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits	TWA		STEL		NOTICES
	ppm	mg/m^3	ppm	mg/m^3	
Ethanol (Ethyl alcohol)	1,000	1,880			
tert-Butyl alcohol	100	303	150	445	

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 – Short-term exposure limit). The 15 minute time weighted average exposure standard. Applies to any 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.

(skin) – Skin absorption. Skin absorption- applicable to a substance that is capable of being significantly absorbed into the body through contact with skin.

(bio) – Exposure can also be estimated by biological monitoring.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as a fine dividing line 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 None known.

Engineering Controls	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. Vapour heavier than air – prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.
Personal Protective Equipment	SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES
	Personal protective equipment (PPE) must be suitable for the nature of the work and any hazards associated with it, as identified by the risk assessment conducted.
	When handling individual retail packs, no personal protective equipment is required.
	Wear safety shoes, overalls, gloves, safety glasses. Available information suggest that gloves from nitrile rubber should be suitable for intermittent contact. However, due to variations in gloves construction and local conditions, the user should make a final assessment. Always wash hand 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 conveniently located near the workstation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid
Odour	Alcoholic
Solubility	Soluble in water
Specific Gravity	0.8
Relative Vapour Density (air=1)	>1
Flash Point (^{0}C)	11-13 (Tag closed cup)
pH	Not applicable
Evaporation Rate	Not available
Freezing Point	Not available
Melting Point/Range (ºC)	Approximately -117 (Ethanol)
Boiling Point/Range (ºC)	78 (ethanol)
Vapour Pressure (20ºC)	5.9 kPa
Flammability Limits (%)	3.3 – 19 (Ethanol)
Autoignition Temperature (ºC)	422
Viscosity	Not available
Total VOC (g/Litre)	Not available

10. STABILITY AND REACTIVITY

Chemical stability	This material is thermally stable when stored and used as directed.
Conditions to avoid	Elevated temperatures and sources of ignition.
Incompatible materials	Oxidising agents.
Hazardous decomposition products	Oxides of carbon and nitrogen, smoke and other toxic fumes.
Hazardous reactions	No known hazardous 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

Swallowed Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. Accidental ingestion of the material may be damaging to the health of the individual.

Eye Contact A severe eye irritant.

Skin Contact Contact with skin may result in mild to moderate irritation.

Inhaled High vapour concentrations may cause a burning sensation in the throat and nose, stinging and watering in the eyes.

Acute Toxicity

Inhalation This material has been classified as non-hazardous.

Skin contact This material has been classified as non-hazardous.

Ingestion This material has been classified as non-hazardous.

Corrosion/Irritancy Eye: this material has been classified as a 6.4A – Substances that are irritating to the eye.
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 No information available.

Specific target organ toxicity (single exposure). No information available.

Chronic Toxicity

Mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity (including via lactation) No information available.

Specific target organ toxicity (repeated exposure) No information available.

12. ECOTOXICOLOGICAL INFORMATION

Acute aquatic hazard: Avoid contaminating waterways. Acute toxicity estimate (based on ingredients):
ETHYL ALCOHOL:
LC50 / 96 hour Fish 42 mg/l
EC50 / 48 hour Crustacea 2 mg/l
EC50 / 96 hour Algae and other aquatic plants 17.921 mg/l

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 No information available.

Persistence and degradability ETHYL ALCOHOL: Biodegradation is expected.

Bioaccumulative potential EHTYL ALCOHOL: Bioaccumulation is unlikely.

Mobility No information available.

13. DISPOSAL

Contain spilled material in suitable containers or absorb with suitable absorbent material for subsequent disposal. 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, national and international regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "New Zealand NZS 5433: Transport of Dangerous Goods on Land".



UN No:	1170
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	●2YE
Emergency Response Guide No:	14
Proper Shipping Name:	Ethanol (Ethyl Alcohol)
Segregation Dangerous Goods:	Not to be loaded with explosives (Class 1), flammable gasses (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:	Ethanol (Ethyl Alcohol)

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:	Ethanol (Ethyl Alcohol)

15. REGULATORY INFORMATION

This material/constituent(s) is subject to the following requirements:

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

EPA Group Standard HSR 002553 – Denatured Ethanol Group Standard

For more information refer to the ERMA website: www.epa.govt.nz

16. OTHER INFORMATION

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