

## SAFETY DATA SHEET

Australian statement of hazardous nature: Classified as hazardous according to criteria of Safe Work Australia

### Section 1 - Identification

Product Name Methyl alcohol

Product Code SPXSVO-FSLAU, SPXTHM-X, SPXTHM-XH, SPXVO-CMCAU

Address ThermoFisher Scientific Australia Pty Ltd

5 Caribbean Drive, Scoresby VICTORIA 3179, Australia

Emergency Tel. CHEMTREC®

03 9757 4559 or +613 9757 4559

Telephone / Fax Numbers Tel: 1300 735 292

Fax: 1800 067 639

E-mail address ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National

Code of Practice for Chemicals of Security Concern.

# Section 2 - Hazard(s) Identification

#### Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards

Flammable liquids Category 2

**Health hazards** 

Acute Oral Toxicity

Acute Dermal Toxicity

Acute Inhalation Toxicity - Vapors

Specific target organ toxicity - (single exposure)

Category 3

Category 3

Category 1

Environmental hazards
No hazards identified

#### **Label Elements**







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#### Signal Word Danger

#### **Hazard Statements**

H225 - Highly flammable liquid and vapor

H370 - Causes damage to organs

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled

#### **Precautionary Statements**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P311 - Call a POISON CENTER or doctor

P330 - Rinse mouth

P363 - Wash contaminated clothing before reuse

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P501 - Dispose of contents/ container to an approved waste disposal plant

#### Other information

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

### Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Methyl alcohol	67-56-1	99.99
Trihalomethanes	RR-01615-9	0.001
2,4,6-Trichloroanisole	87-40-1	0.001

# Section 4 - First Aid Measures

**Inhalation**Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center immediately.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In

the case of contact with eyes, rinse immediately with plenty of water and seek medical

advice.

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

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required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

None reasonably foreseeable. . Inhalation of high vapor concentrations may cause

symptoms like headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically.

## Section 5 - Fire Fighting Measures

#### **Suitable Extinguishing Media**

Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

No information available.

#### **Specific Hazards Arising from the Chemical**

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

#### Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### Section 6 - Accidental Release Measures

#### **Emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

#### **Environmental Precautions**

Should not be released into the environment.

#### Methods for Containment and Clean Up

#### Clean-up methods - small spillage

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### Clean-up methods - large spillage

Typically only supplied is small quantiites as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

#### **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

## Section 7 - Handling and Storage

#### **Precautions for Safe Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from

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open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

#### Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

AS 1940-2004 - The storage and handling of flammable and combustible liquids

### Section 8 - Exposure Controls and Personal Protection

#### **Exposure limits**

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)] Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

**ACGIH** - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

**DE** - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

NZ - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

L	Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
ſ	Methyl alcohol	STEL: 250 ppm	TWA: 200 ppm	TWA: 200 ppm	WEL - TWA: 200 ppm	100 ppm TWA MAK;
1		STEL: 328 mg/m <sup>3</sup>	TWA: 262 mg/m <sup>3</sup>	STEL: 250 ppm	TWA; 266 mg/m <sup>3</sup> TWA	130 mg/m³ TWA
1		TWA: 200 ppm	STEL: 250 ppm	Skin	WEL - STEL: 250 ppm	MAKSkin absorber
1		TWA: 262 mg/m <sup>3</sup>	STEL: 328 mg/m <sup>3</sup>		STEL; 333 mg/m <sup>3</sup> STEL	
L		_	Skin		_	

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Component	Australia	New Zealand	European Union	United Kingdom	Germany
Methyl alcohol		15 mg/L (urine) end of			Methanol: 15 mg/L urine
		shift (Methyl alcohol)			(end of shift)
					Methanol: 15 mg/L urine
					(for long-term
					exposures: at the end of
					the shift after several
					shifts)

#### **Exposure Controls**

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard

AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Disposable gloves	See manufacturers	-	AS/NZS 2161	(minimum requirement)
	recommendations			

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g.

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sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Repiratory Protection Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

(Air = 1.0)

Vapors may form explosive mixtures with air

Liquid

and maintenance of repiratory protective devices (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures**Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

### Section 9 - Physical and Chemical Properties

#### Information on basic physical and chemical properties

**Appearance** 

Physical State Liquid

Odor No information available

Odor Threshold
pH
Not applicable
Melting Point/Range
Softening Point
Boiling Point/Range
No data available
No data available
64.7 °C / 148.5 °F

Flash Point 11 °C / 51.8 °F Method - No information available

**Evaporation Rate** No data available

Flammability (solid,gas) Not applicable Liquid

Explosion Limits No data available

Vapor PressureNo data availableVapor DensityNo data available

Specific Gravity / Density No data available

Bulk Density Not applicable

Water Solubility
Solubility in other solvents
No information available
No information available

Partition Coefficient (n-octanol/water)

**Component** log Pow Methyl alcohol -0.74

Autoignition Temperature

Decomposition Temperature

Viscosity

No data available
No data available
No data available

Explosive Properties

Oxidizing Properties

No information available

Other information

## Section 10 - Stability and Reactivity

Reactivity None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Keep away from open flames, hot surfaces and sources of ignition.

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Incompatible Materials None known.

Hazardous Decomposition Products None under normal use conditions.

**Hazardous Polymerization** No information available.

# Section 11 - Toxicological Information

#### Information on Toxicological Effects

#### **Product Information**

(a) acute toxicity;

Oral Category 3
Dermal Category 3
Inhalation Category 3

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl alcohol	LD50 = 1187 - 2769  mg/kg (Rat)	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L (Rat) 4 h

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

**Respiratory**Based on available data, the classification criteria are not met
Skin
Based on available data, the classification criteria are not met

Component	Test method	Test species	Study result
Methyl alcohol	OECD Test Guideline 406	guinea pig	non-sensitising
67-56-1 ( 99.99 )	Guinea Pig Maximisation Test		_
	(GPMT)		

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

Component	Test method	Test species / Duration	Study result
Methyl alcohol	OECD Test Guideline 416	Rat / Inhalation 2 Generation	NOAEC = 1.3 mg/l (air)
67-56-1 (99.99)			

(h) STOT-single exposure; Category 1

Results / Target organs Optic nerve

Central nervous system (CNS)

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs None known.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Symptoms / effects,both acute and Inhalation of high vapor concentrations may cause symptoms like headache, dizziness,

**delayed** tiredness, nausea and vomiting

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## Section 12 - Ecological Information

**Ecotoxicity effects** 

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Methyl alcohol	Pimephales promelas:	EC50 > 10000 mg/L 24h		EC50 = 39000 mg/L 25
	LC50 > 10000 mg/L 96h			min
				EC50 = 40000 mg/L 15
				min
				EC50 = 43000 mg/L 5
				min

Persistence and Degradability

No information available

**Persistence** Persistence is unlikely, based on information available.

Component	Degradability
Methyl alcohol	DT50 ~ 17.2d
67-56-1 (99.99)	>94% after 20d

Bioaccumulative Potential Bioaccumulation is unlikely

	Component	log Pow	bioconcentration factor (bcr)	
	Methyl alcohol	-0.74	<10 dimensionless	
Mobility The product contains volatile organic compounds (VOC) which will evaporate easily for			nds (VOC) which will evaporate easily from all	
		surfaces. Will likely be mobile in the environment due to its volatility Disperses rapidly in		
		air		
Endocrine Disruptor Information		This product does not contain any known or su	uspected endocrine disruptors	

Endocrine Disruptor Informatio Persistent Organic Pollutant Ozone Depletion Potential

Component

This product does not contain any known or suspected endocrine disruptors This product does not contain any known or suspected substance This product does not contain any known or suspected substance

### Section 13 - Disposal Considerations

Waste from Residues/Unused

**Products** 

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

**Contaminated Packaging** 

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

## Section 14 - Transport Information

#### IMDG/IMO

UN-No UN1230 Proper Shipping Name METHANOL

Technical Shipping Name Organic standards in Methanol

Hazard Class 3 Subsidiary Hazard Class 6.1 Packing Group II

<u>ADG</u>

UN-No UN1230 Proper Shipping Name METHANOL

Technical Shipping Name Organic standards in Methanol

Hazard Class 3 Subsidiary Hazard Class 6.1

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Packing Group	
Component	Hazchem Code
Methyl alcohol	2WE
67-56-1 ( 99.99 )	

#### <u>IATA</u>

UN-No UN1230 Proper Shipping Name METHANOL

Technical Shipping Name Organic standards in Methanol

Hazard Class 3
Subsidiary Hazard Class 6.1
Packing Group II

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

## Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations Australia

See section 8 for national exposure control parameters.

#### Standard for the Uniform Scheduling of Medicines and Poisons

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons.

Component	Standard for the Uniform Scheduling of Medicines and Poisons
Methyl alcohol - 67-56-1	Schedule 5 listed - except its derivatives;in preparations except a) when included in Schedule 10, or b)
	in preparations containing <=2% of Methanol, or c) when Methanol is present only as a denaturant of
	Ethanol
	Schedule 6 listed - except its derivatives; except a) when included in Schedule 5, or b) when included in
	Schedule 10, or c) in preparations containing <=2% of Methanol
	Schedule 10 listed

#### **Australian Industrial Chemicals Introduction Scheme (AICIS)**

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information	
Methyl alcohol - 67-56-1	Present	-	

#### Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

#### **Chemicals of Security Concern**

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

### National pollutant inventory Subject to reporting requirements

Component	National pollutant inventory		
Methyl alcohol - 67-56-1	10 tonne/yr. Threshold category 1		

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#### Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

#### **International Inventories**

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	<b>ENCS</b>	ISHL	IECSC	KECL
Methyl alcohol	X	X	200-659-6	-	X	Х	-	Х	Χ	Χ	Х	KE-23193
2,4,6-Trichloroanisole	-	-	201-743-5	-	i <del>-</del> i	-	-	-	-		-	-

Legend: X - Listed. '-' - Not Listed. KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their dispoal Not applicable.

Component	CAS No	OECD HPV	Restriction of	Seveso III Directive	Seveso III Directive	
			Hazardous	(2012/18/EC) -	(2012/18/EC) -	
			Substances (RoHS)	Qualifying Quantities	Qualifying Quantities	
				for Major Accident	for Safety Report	
				Notification	Requirements	
Methyl alcohol	67-56-1	Listed	Not applicable	500 tonne	5000 tonne	
Trihalomethanes	RR-01615-9	Not applicable	Not applicable	Not applicable	Not applicable	
2,4,6-Trichloroanisole	87-40-1	Not applicable	Not applicable	Not applicable	Not applicable	

#### Authorisation/Restrictions according to EU REACH

Component	,	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	
Methyl alcohol	-	Use restricted. See entry 69. (see link for restriction details) Use restricted. See entry 75.	-
		(see link for restriction details)	

https://echa.europa.eu/substances-restricted-under-reach

### **Section 16 - Other Information**

Legend

AICS - Australian Inventory of Chemical Substances TSCA - United States Toxic Substances Control Act Section 8(b) NZIoC - New Zealand Inventory of Chemicals

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### SAFETY DATA SHEET

Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Shins

NZS 5433:2020 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%
WEL - Workplace Exposure Limit
DNEL - Derived No Effect Level
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative
VOC - (Volatile Organic Compound)

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances **ENCS** - Japanese Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**CAS** - Chemical Abstracts Service

**ACGIH** - American Conference of Governmental Industrial Hygienists

Predicted No Effect Concentration (PNEC)

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

LC50 - Lethal Concentration 50% ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment NOEC - No Observed Effect Concentration BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

#### Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 12-Mar-2025

**Revision Summary** Update to GHS format.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## **End of Safety Data Sheet**

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