

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

## Section 1 - Identification

**Product Name** Fast Flex Holding Solution

<b>Product Code</b>	<b>ALP9800, ALP9802</b>
<b>Address</b>	ThermoFisher Scientific Australia Pty Ltd 5 Caribbean Drive, Scoresby VICTORIA 3179, Australia
<b>Emergency Tel.</b>	<b>CHEMTREC®</b> <b>03 9757 4559 or +613 9757 4559</b>
<b>Telephone / Fax Numbers</b>	Tel: 1300 735 292 Fax: 1800 067 639
<b>E-mail address</b>	ANZinfo@thermofisher.com

**Recommended Use** Laboratory chemicals.

**Uses advised against** This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances. This product contains one or more substance(s) subject to Prohibition, Authorization or Restriction. Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met. 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

Skin Corrosion/Irritation  
 Serious Eye Damage/Eye Irritation  
 Skin Sensitization  
 Germ Cell Mutagenicity  
 Carcinogenicity  
 Specific target organ toxicity - (single exposure)

Category 2  
 Category 1  
 Category 1  
 Category 2  
 Category 1B  
 Category 1

#### Environmental hazards

No hazards identified

### Label Elements



Flame



Health Hazard



Corrosion

**Signal Word****Danger****Hazard Statements**

H225 - Highly flammable liquid and vapor  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H341 - Suspected of causing genetic defects if inhaled  
 H350 - May cause cancer  
 H370 - Causes damage to organs

**Precautionary Statements**

P201 - Obtain special instructions before use  
 P202 - Do not handle until all safety precautions have been read and understood  
 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P280 - Wear protective gloves  
 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. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor  
 P363 - Wash contaminated clothing before reuse  
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
 P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor  
 P403 + P235 - Store in a well-ventilated place. Keep cool  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**

Contains a known or suspected endocrine disruptor  
 Included in the list established in accordance with Article 59(1) for having endocrine disrupting properties

## Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Ethyl alcohol	64-17-5	60-63
Water	7732-18-5	20-22
Dimethyl sulfoxide	67-68-5	2-5
Formaldehyde	50-00-0	4 - 6
Methyl alcohol	67-56-1	3-5
Isopropyl alcohol	67-63-0	3-5
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	9002-93-1	<1

Sodium acetate	127-09-3	<1
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## Section 4 - First Aid Measures

<b>Inhalation</b>	Remove to fresh air. 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. Call a physician or poison control center immediately. Artificial respiration and/or oxygen may be necessary. Consult a physician if necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician immediately. SPEEDY ACTION IS CRITICAL, GET MEDICAL AID IMMEDIATELY. If symptoms persist, call a physician. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>General Advice</b>	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
<b>Self-Protection of the First Aider</b>	Use personal protective equipment as required.
<b>First Aid Facilities</b>	Eyewash, safety shower and washroom.
<b>Most important symptoms and effects</b>	Difficulty in breathing. Causes eye burns. May cause allergic skin reaction. Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
<b>Notes to Physician</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.

## Section 5 - Fire Fighting Measures

### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers. Water mist may be used to cool closed containers.

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

No information available.

### Hazardous Decomposition Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Formaldehyde.

**Specific Hazards Arising from the Chemical**

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

**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**

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Keep people away from and upwind of spill/leak.

**Environmental Precautions**

Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up****Clean-up methods - small spillage**

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

**Clean-up methods - large spillage**

Typically only supplied in small quantities 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**

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Pay attention to flashback. No information available. Do not take internally. Keep away from 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.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Flammables area. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Corrosives area. 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

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Ethyl alcohol	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 380 mg/m <sup>3</sup> STEL: 800 ppm STEL: 1520 mg/m <sup>3</sup>	STEL: 1000 ppm	TWA: 1000 ppm TWA; 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL; 5760 mg/m <sup>3</sup> STEL	200 ppm TWA MAK; 380 mg/m <sup>3</sup> TWA MAK
Dimethyl sulfoxide					TWA: 50 ppm (8 Stunden). AGW - exposure factor 2 TWA: 160 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 50 ppm (8 Stunden). MAK TWA: 160 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 100 ppm Höhepunkt: 320 mg/m <sup>3</sup> Haut
Formaldehyde	STEL: 2 ppm STEL: 2.5 mg/m <sup>3</sup> TWA: 1 ppm TWA: 1.2 mg/m <sup>3</sup>	TWA: 0.3 ppm STEL: 0.6 ppm	TWA: 0.1 ppm STEL: 0.3 ppm	STEL: 2 ppm 15 min STEL: 2.5 mg/m <sup>3</sup> 15 min TWA: 2 ppm 8 hr TWA: 2.5 mg/m <sup>3</sup> 8 hr Carc.	TWA: 0.3 ppm (8 Stunden). AGW - exposure factor 2 TWA: 0.37 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 0.3 ppm (8 Stunden). MAK no irritation should occur during mixed exposure TWA: 0.37 mg/m <sup>3</sup> (8 Stunden). MAK no irritation should occur during mixed exposure Höhepunkt: 0.6 ppm Höhepunkt: 0.74 mg/m <sup>3</sup>
Methyl alcohol	STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> TWA: 200 ppm TWA: 262 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 262 mg/m <sup>3</sup> STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> Skin	TWA: 200 ppm STEL: 250 ppm Skin	WEL - TWA: 200 ppm TWA; 266 mg/m <sup>3</sup> TWA WEL - STEL: 250 ppm STEL; 333 mg/m <sup>3</sup> STEL	100 ppm TWA MAK; 130 mg/m <sup>3</sup> TWA MAKSkin absorber
Isopropyl alcohol	STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup> TWA: 400 ppm TWA: 983 mg/m <sup>3</sup>	TWA: 400 ppm TWA: 983 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1230 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 400 ppm	STEL: 500 ppm 15 min STEL: 1250 mg/m <sup>3</sup> 15 min TWA: 400 ppm 8 hr TWA: 999 mg/m <sup>3</sup> 8 hr	TWA: 200 ppm (8 Stunden). AGW - exposure factor 2 TWA: 500 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 200 ppm (8 Stunden). MAK TWA: 500 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 400 ppm Höhepunkt: 1000 mg/m <sup>3</sup>

#### 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 shift (Methyl alcohol)			Methanol: 15 mg/L urine (end of shift ) Methanol: 15 mg/L urine (for long-term exposures: at the end of the shift after several

					shifts )
Isopropyl alcohol					Acetone: 25 mg/L whole blood (end of shift ) Acetone: 25 mg/L urine (end of shift )

**Exposure Controls****Engineering Measures**

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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**

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 recommendations	-	AS/NZS 2161	(minimum requirement)

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. 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**

Wear appropriate protective gloves and clothing to prevent skin exposure Apron Impervious gloves

**Respiratory 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 and maintenance of respiratory protective devices (or AUS/NZ equivalent)  
When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures**

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

**Environmental exposure controls**

Prevent product from entering drains. Do not allow material to contaminate ground water system.

## Section 9 - Physical and Chemical Properties

**Information on basic physical and chemical properties****Appearance**

Colorless

**Physical State**

Liquid

**Odor**

Formaldehyde

**Odor Threshold**

No data available

**pH**

Not applicable

**Melting Point/Range**

No data available

**Softening Point**

No data available

**Boiling Point/Range**

Not applicable

**Flash Point**

21.1 °C / 70 °F

**Method** - No information available

<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	No data available	
<b>Vapor Pressure</b>	No data available	
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Specific Gravity / Density</b>	No data available	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	No information available	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Ethyl alcohol	-0.32	
Dimethyl sulfoxide	-1.35	
Formaldehyde	-0.35	
Methyl alcohol	-0.74	
Isopropyl alcohol	0.05	
Poly(oxy-1,2-ethanediyl),	2.7	
.alpha.-[4-(1,1,3,3-tetramethylbutyl)phe		
nyl]-.omega.-hydroxy-		
Sodium acetate	-4.22	
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	No data available	
<b>Explosive Properties</b>		Vapors may form explosive mixtures with air
<b>Oxidizing Properties</b>	No information available	

Other information

## Section 10 - Stability and Reactivity

<b>Reactivity</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Incompatible products, Heat, flames and sparks, Keep away from open flames, hot surfaces and sources of ignition.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong acids, Strong bases, Acid anhydrides, Acid chlorides, Metals, Peroxides.
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Formaldehyde.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

## Section 11 - Toxicological Information

**Information on Toxicological Effects****Product Information**

<b>(a) acute toxicity;</b>	
Oral	Category 4
Dermal	Based on available data, the classification criteria are not met
Inhalation	Category 4

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Ethyl alcohol	LD50 = 7060 mg/kg ( Rat )		20000 ppm/10H ( Rat )
Water	-	-	-
Dimethyl sulfoxide	LD50 = 28300 mg/kg ( Rat )	LD50 = 40000 mg/kg ( Rat )	LC50 > 5.33 mg/L ( Rat ) 4 h
Formaldehyde	500 mg/kg ( Rat )	LD50 = 270 mg/kg ( Rabbit )	0.578 mg/L ( Rat ) 4 h
Methyl alcohol	LD50 = 1187 – 2769 mg/kg ( Rat )	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L ( Rat ) 4 h
Isopropyl alcohol	5045 mg/kg ( Rat ) 3600 mg/kg ( Mouse )	12800 mg/kg ( Rat )	72.6 mg/L ( Rat ) 4 h
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omega.-hydroxy-	1800 mg/kg ( Rat )		
Sodium acetate	LD50 = 3530 mg/kg ( Rat )	LD50 > 10 g/kg ( Rabbit )	LC50 > 30 g/m <sup>3</sup> ( Rat ) 1 h

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory

No data available

Skin

Category 1

Component	Test method	Test species	Study result
Formaldehyde 50-00-0 ( 4 - 6 )	Skin sensitization Test method Patch Test Respiratory sensitization in vitro	Man guinea pig	Sensitizer Sensitization
Methyl alcohol 67-56-1 ( 3-5 )	OECD Test Guideline 406 Guinea Pig Maximisation Test (GPMT)	guinea pig	non-sensitising

Sensitization

No information available

(e) germ cell mutagenicity;

Category 2

Mutagenic effects have occurred in humans

(f) carcinogenicity;

Category 1B

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	Australia	New Zealand	New South Wales	Western Australia	IARC	EU	UK	Germany
Formaldehyde	Cat 1B	Confirmed carcinogen			Group 1	Carc Cat. 1B	Cat 3	

(g) reproductive toxicity;

No data available

Component	Test method	Test species / Duration	Study result
Methyl alcohol 67-56-1 ( 3-5 )	OECD Test Guideline 416	Rat / Inhalation 2 Generation	NOAEC = 1.3 mg/l (air)

Teratogenicity

Teratogenic effects have occurred in humans.

(h) STOT-single exposure;

Category 3

Results / Target organs

Respiratory system  
Optic nerve  
Central nervous system (CNS)

(i) STOT-repeated exposure;

No data available

Target Organs

No information available.

(j) aspiration hazard;

No data available



**Other Adverse Effects**

Tumorigenic effects have been reported in experimental animals. The toxicological properties have not been fully investigated.

**Symptoms / effects, both acute and delayed**

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

## Section 12 - Ecological Information

**Ecotoxicity effects**

The product contains following substances which are hazardous for the environment. Contains a substance which is: Toxic to aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min
Dimethyl sulfoxide	40 g/L LC50 96 h 33-37 g/L LC50 96 h	EC50 24h 7000 mg/L	EC50 96h 12350 - 25500 mg/L	= 16000 mg/L EC50 Pseudomonas putida 16 h = 32 g/L EC50 Tetrahymena pyriformis 24 h = 77 mg/L EC50 Photobacterium phosphoreum 5 min
Formaldehyde	Leuciscus idus: LC50 = 15 mg/L 96h	EC50 = 20 mg/L 96h EC50 = 2 mg/L 48h	EC50 (72h) = 4.89 mg/L (Desmodesmus subspicatus)	
Methyl alcohol	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 > 10000 mg/L 24h		EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min
Isopropyl alcohol	LC50: = 9640 mg/L, 96h flow-through (Pimephales promelas) LC50: > 1400000 µg/L, 96h (Lepomis macrochirus) LC50: = 11130 mg/L, 96h static (Pimephales promelas) LC50: = 10000000 µg/L, 96h (Daphnia)	13299 mg/L EC50 = 48 h 9714 mg/L EC50 = 24 h	EC50: > 1000 mg/L, 72h (Desmodesmus subspicatus) EC50: > 1000 mg/L, 96h (Desmodesmus subspicatus)	= 35390 mg/L EC50 Photobacterium phosphoreum 5 min
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-	LC50 = 8.9 mg/L 96H LC50 = 4.0 mg/l 96H (Pimephales promelas)	EC50 = 26 mg/L 48h	-	-
Sodium acetate	LC50: > 100 mg/L, 96h semi-static (Danio rerio)	EC50: > 1000 mg/L, 48h (Daphnia magna)	-	= 7200 mg/L EC50 Pseudomonas putida 18 h

**Persistence and Degradability** No information available

Component	Degradability
Formaldehyde 50-00-0 ( 4 - 6 )	Readily biodegradable (OECD guideline 301A, 301C and 301D) under aerobic and anaerobic conditions.
Methyl alcohol 67-56-1 ( 3-5 )	DT50 ~ 17.2d >94% after 20d
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- 9002-93-1 ( <1 )	60% >28 days

**Degradation in sewage**

Contains substances known to be hazardous to the environment or not degradable in waste

**treatment plant** water treatment plants.  
**Bioaccumulative Potential** No information available

Component	log Pow	Bioconcentration factor (BCF)
Ethyl alcohol	-0.32	No data available
Dimethyl sulfoxide	-1.35	No data available
Formaldehyde	-0.35	No data available
Methyl alcohol	-0.74	<10 dimensionless
Isopropyl alcohol	0.05	No data available
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omega.-hydroxy-	2.7	No data available
Sodium acetate	-4.22	<10 dimensionless

**Mobility****Endocrine Disruptor Information**

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omega.-hydroxy-	Group III Chemical	-	-

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

**Ozone Depletion Potential** 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. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

## Section 14 - Transport Information

**IMDG/IMO**

**UN-No** UN1170  
**Proper Shipping Name** Ethanol solution  
**Technical Shipping Name** Fast Flex Holding Solution  
**Hazard Class** 3  
**Packing Group** II

**ADG**

**UN-No** UN1170  
**Proper Shipping Name** Ethanol solution  
**Technical Shipping Name** Fast Flex Holding Solution  
**Hazard Class** 3  
**Packing Group** II

Component	Hazchem Code
Ethyl alcohol	2YE
64-17-5 ( 60-63 )	2Y
Formaldehyde	2W

50-00-0 ( 4 - 6 )	2X
Methyl alcohol 67-56-1 ( 3-5 )	2WE
Isopropyl alcohol 67-63-0 ( 3-5 )	1Z

**IATA**

<b>UN-No</b>	UN1170
<b>Proper Shipping Name</b>	Ethanol solution
<b>Technical Shipping Name</b>	Fast Flex Holding Solution
<b>Hazard Class</b>	3
<b>Packing Group</b>	II

<b>Environmental hazards</b>	No hazards identified
<b>Special Precautions</b>	No special precautions required
<b>Additional information</b>	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.

<b>Component</b>	<b>Standard for the Uniform Scheduling of Medicines and Poisons</b>
Dimethyl sulfoxide - 67-68-5	Schedule 4 listed - for therapeutic use except when included in Schedule 6, or in in-vitro test kits, or when used as a flavour component in compliance with the current Therapeutic Goods (Permissible Ingredients) determination for listed medicines;except Dimethyl sulfone Schedule 6 listed - except Dimethyl sulfone;for the treatment of animals in clay poultices Schedule 6 listed - except Dimethyl sulfone;when not for the therapeutic use, or in cosmetic preparations, or for the treatment of animals: when combined with no other therapeutic substances, in liquid preparations containing Copper salicylate and <=1% of Methyl salicylate as the only other therapeutic substances, or in other preparations except when containing <=10% of Dimethyl sulfoxide
Formaldehyde - 50-00-0	Schedule 2 listed Schedule 6 listed - except its derivatives;in preparations as free Formaldehyde except: a) for human therapeutic use, b) in oral hygiene preparations, c) in nail hardener cosmetic preparations containing >=5% of free Formaldehyde, d) in nail hardener cosmetic preparations containing <=0.2% of free Formaldehyde when labelled with the warning statement: PROTECT CUTICLES WITH GREASE OR OIL, e) in all other cosmetic preparations, or f) in other preparations containing <=0.2% of free Formaldehyde when labelled with the warning statement: CONTAINS FORMALDEHYDE Schedule 10 listed
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)**

<b>Component</b>	<b>Australian Industrial Chemicals Introduction Scheme (AICIS)</b>	<b>Additional information</b>
Ethyl alcohol - 64-17-5	Present	-

Water - 7732-18-5	Present	-
Dimethyl sulfoxide - 67-68-5	Present	-
Formaldehyde - 50-00-0	Present	Specific information requirement: Obligations to provide information apply. You must tell us within 28 days if the circumstances of your importation or manufacture (introduction) are different to those in our assessment.
Methyl alcohol - 67-56-1	Present	-
Isopropyl alcohol - 67-63-0	Present	-
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omega.-hydroxy- - 9002-93-1	Present	-
Sodium acetate - 127-09-3	Present	-

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

This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances.

**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

Component	Australian - Illicit Drug Precursors/Reagents Substance List	Chemicals of Security Concern
Formaldehyde - 50-00-0	Category 2	
Sodium acetate - 127-09-3	Category 3	

**Legend**

Category 2 - Chemicals and apparatus that require an End User Declaration when sold to non-account customers

Category 3 - Chemicals and apparatus that may be used in the illicit production of drugs. Purchases from this list should alert companies or organizations to seek further indicators of any suspicious orders or enquiries. No official reporting is required for items on this list unless considered warranted

**National pollutant inventory**

Subject to reporting requirements

Component	National pollutant inventory
Ethyl alcohol - 64-17-5	10 tonne/yr. Threshold category 1
Formaldehyde - 50-00-0	10 tonne/yr. Threshold category 1
Methyl alcohol - 67-56-1	10 tonne/yr. Threshold category 1

**Prohibition or notification/licensing requirements**

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

This product contains one or more substance(s) subject to Prohibition, Authorization or Restriction. Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met.

Component	Australia	New South Wales	Western Australia	New Zealand
Formaldehyde - 50-00-0	Cat 1B			Confirmed carcinogen

**International Inventories**

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	ISHL	IECSC	KECL
Ethyl alcohol	X	X	200-578-6	-	X	X	-	X	X	X	X	KE-13217
Water	X	X	231-791-2	-	X	X	-	X	X		X	KE-35400
Dimethyl sulfoxide	X	X	200-664-3	-	X	X	-	X	X	X	X	KE-32367
Formaldehyde	X	X	200-001-8	-	X	X	-	X	X	X	X	KE-17074
Methyl alcohol	X	X	200-659-6	-	X	X	-	X	X	X	X	KE-23193
Isopropyl alcohol	X	X	200-661-7	-	X	X	-	X	X	X	X	KE-29363
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetra methylbutyl)phenyl]-.o mega.-hydroxy-	X	X	-	-	X	X	-	X	X	X	X	KE-33568
Sodium acetate	X	X	204-823-8	-	X	X	-	X	X	X	X	KE-00061

**Legend:** X - Listed, '-' - Not Listed, XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)). **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 disposal

Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.

Component	Basel Convention (Hazardous Waste)	Australian Hazardous Waste Act - Categories of Wastes to Be Controlled
Ethyl alcohol - 64-17-5	Annex I - Y42	Y42 except Halogenated solvents
Isopropyl alcohol - 67-63-0	Annex I - Y42	Y42 except Halogenated solvents

Component	CAS No	OECD HPV	Restriction of Hazardous Substances (RoHS)	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Ethyl alcohol	64-17-5	Listed	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Dimethyl sulfoxide	67-68-5	Listed	Not applicable	Not applicable	Not applicable
Formaldehyde	50-00-0	Listed	Not applicable	5 tonne	50 tonne
Methyl alcohol	67-56-1	Listed	Not applicable	500 tonne	5000 tonne
Isopropyl alcohol	67-63-0	Listed	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethyl butyl)phenyl]-.omega.-hydroxy -	9002-93-1	Not applicable	Not applicable	Not applicable	Not applicable
Sodium acetate	127-09-3	Listed	Not applicable	Not applicable	Not applicable

### Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Dimethyl sulfoxide	-	Use restricted. See entry 75. (see link for restriction details)	-
Formaldehyde	-	Use restricted. See entry 72. (see link for restriction details) Use restricted. See entry 77. (see link for restriction details) Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	-
Methyl alcohol	-	Use restricted. See entry 69. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	-
Isopropyl alcohol	-	Use restricted. See entry 75. (see link for restriction details)	-

Poly(oxy-1,2-ethanediyl), alpha-[4-(1,1,3,3-tetramethylbut yl)phenyl]-.omega.-hydroxy-	Endocrine disrupting properties (Article 57(f) - environment) Application date: July 4, 2019 Sunset date: January 4, 2021 Exemption - extended latest application and sunset date for the research, development and production of medicinal products or medical devices in view of their use for the diagnosis, treatment or prevention of the coronavirus disease (COVID-19)	-	SVHC Candidate list - Equivalent level of concern having probable serious effects to the environment (Article 57f - environment)
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After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/candidate-list-table>

<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) Inventory

**DSL/NDL** - 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 Ships

**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)

**NZIoC** - New Zealand Inventory of Chemicals

**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

**ADG** - Australian Code for the Transport of Dangerous Goods by Road and Rail

**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, Chemadviser - LOLI, Merck index, RTECS

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

### 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).**

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**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**