

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/13/2013 Revision date: 03/24/2014 Supersedes: 05/23/2013 Version: 1.1 SECTION 1: Identification of the substance/mixture and of the company/undertaking **Product identifier** 1.1. Product form : Mixture Product name : Thymolphthalein, 0.1% in Ethanol Product code LC26075 Relevant identified uses of the substance or mixture and uses advised against 1.2. Use of the substance/mixture : For laboratory and manufacturing use only. 1.3. Details of the supplier of the safety data sheet LabChem Inc Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court Zelienople, PA 16063 - USA T 412-826-5230 - F 724-473-0647 info@labchem.com - www.labchem.com 1.4. **Emergency telephone number** Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887 SECTION 2: Hazards identification 2.1. **Classification of the substance or mixture GHS-US classification** Flam. Liq. 2 H225 Skin Irrit. 2 H315 Eye Irrit. 2A H319 STOT SE 3 H335 STOT SE 1 H370 2.2. Label elements **GHS-US** labelling Hazard pictograms (GHS-US) GHS07 GHS02 GHS08 Signal word (GHS-US) : Danger Hazard statements (GHS-US) H225 - Highly flammable liquid and vapour H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation H370 - Causes damage to organs (central nervous system, optic nerve) (oral) P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking Precautionary statements (GHS-US) P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P260 - Do not breathe mist, spray, vapours P264 - Wash 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 eye protection, face protection, protective clothing, protective gloves

P302+P352 - IF ON SKIN: Wash with plenty of soap and water

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P312 - Call a POISON CENTER/doctor/physician if you feel unwell

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		 P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P370+P378 - In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam for extinction P403+P233 - Store in a well-ventilated place. Keep container tightly closed P403+P235 - Store in a well-ventilated place. Keep cool P405 - Store locked up P501 - Dispose of contents/container to comply with local, state and federal regulations
2.3.	Other hazards	
Other hazards not contributing to the classification		: None.
2.4.	Unknown acute toxicity (GHS-US)	
No data	available	

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Ethanol	(CAS No) 64-17-5	87.912 - 91.908	Flam. Liq. 2, H225 Carc. 1A, H350 Repr. 2, H361
Isopropyl Alcohol (2-Propanol)	(CAS No) 67-63-0	3.4965 - 6.4935	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Methanol	(CAS No) 67-56-1	2.997 - 5.994	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Thymolphthalein	(CAS No) 125-20-2	0.1	Not classified

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a POISON CENTER or doctor/physician.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Get medical advice/attention.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effect	ts, both acute and delayed
Symptoms/injuries	: Causes damage to organs (optic nerve, central nervous system) (Ingestion).
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Central nervous system depression. Dizziness. Headache. Mental confusion. Nausea. Vomiting. Visual disturbances.
Symptoms/injuries upon intravenous administration	: Not available.
Chronic symptoms	: Affection of the renal tissue. Enlargement/affection of the liver. Dry skin. Visual disturbances.
4.3. Indication of any immediate medical	attention and special treatment needed
Obtain medical assistance	

Obtain medical assistance.

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SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Special hazards arising from the su	Ibstance or mixture
Fire hazard	: Highly flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Reactivity	: None.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Not available.
SECTION 6: Accidental release mea	
	puipment and emergency procedures
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No
	smoking.
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing mist, spray, Vapors.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters. Noti	fy authorities if liquid enters sewers or public waters.
6.3. Methods and material for containm	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections	
See Heading 8. Exposure controls and persona	I protection.
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No naked lights. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Do not breathe mist, vapours, spray.
Hygiene measures	: Wash exposed skin thoroughly after handling.
7.2. Conditions for safe storage, includ	ing any incompatibilities
Technical measures	 Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Heat sources, incompatible materials. Keep in fireproof place. Keep container tightly closed.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources.
Heat and ignition sources	: KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources.
Prohibitions on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area	: Fireproof storeroom.
Special rules on packaging	: Store in a closed container.
7.3. Specific end use(s)	
No additional information available	

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SECTION 8: Exposure controls/personal protection			
8.1. Control parameters			
Ethanol (64-17-5)			
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m ³	
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
Isopropyl Alcohol (2-Propan	ol) (67, 62, 0)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA ACGIH	ACGIH STEL (ppm)	200 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³	
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm	
Methanol (67-56-1)		·	
USA ACGIH	ACGIH TWA (ppm)	200 ppm	
USA ACGIH	ACGIH STEL (ppm)	200 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m ³	
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm	
8.2. Exposure controls			
Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.			
Personal protective equipment : Avoid all unnecessary exposure.			
Hand protection : Wear protective gloves.			
Eye protection : Chemical goggles or safety glasses.			
Skin and body protection : Wear suitable protective clothing.			
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.			
Thermal hazard protection : None necessary.			

: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Other information

SECTION 9: Physical and chemical properties			
9.1. Information on basic physical and	chemical properties		
Physical state	: Liquid		
Appearance	: Clear, colorless liquid.		
Colour	: Colourless.		
Odour	: characteristic.		
Odour threshold	: No data available		
рН	: No data available		
Relative evaporation rate (butylacetate=1)	: No data available		
Melting point	: No data available		
Freezing point	: No data available		
Boiling point	: No data available		
Flash point	: No data available		
Self ignition temperature	: No data available		
Decomposition temperature	: No data available		
Flammability (solid, gas)	: No data available		
Vapour pressure	: No data available		
Relative vapour density at 20 °C	: No data available		
Relative density	: No data available		
Solubility	: No data available		
Log Pow	: No data available		
Log Kow	: No data available		

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available.
Oxidising properties	: None.
Explosive limits	: No data available
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9.2. Other information	
No additional information available	
SECTION 10: Stability and reactive	vity
10.1. Reactivity	
None.	
10.2. Chemical stability	
Not established. Highly flammable liquid and	d vapour. May form flammable/explosive vapour-air mixture.
10.3. Possibility of hazardous reaction	
Not established.	2110 2110
10.4. Conditions to avoid	
Direct sunlight. Extremely high or low temper	eratures. Open flame.
10.5. Incompatible materials	
Strong acids. Strong bases.	
10.6. Hazardous decomposition prod	ducts
fume. Carbon monoxide. Carbon dioxide. M	lay release flammable gases.
SECTION 11: Toxicological infor	mation
11.1. Information on toxicological eff	rects
A outo toxioity	: Not classified
Acute toxicity	
Thymolphthalein, 0.1% in Ethanol	
ATE (oral)	4500.000 mg/kg
ATE (oral) Ethanol (64-17-5)	4500.000 mg/kg
	4500.000 mg/kg 10740 mg/kg (Rat; Experimental value,Rat; Experimental value)
Ethanol (64-17-5)	
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)
Ethanol (64-17-5) LD50 oral rat	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Experimental
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) >) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Experimental value) value)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l)	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Experimental
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1)	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) >) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Experimental value) 73 mg/l/4h (Rat)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 oral rat	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) >) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat; Rat)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 oral rat LD50 dermal rabbit	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) 0) 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat; Rat; At; Rat) 15800 mg/kg (Rabbit)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 oral rat	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) > 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LD50 dermal rabbit LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l)	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) > 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat)
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) > 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation.
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LD50 dermal rabbit LD50 dermal rabbit LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation Serious eye damage/irritation	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) 0 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation. : Causes serious eye irritation.
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) > 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation. : Not classified
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LD50 dermal rabbit LD50 dermal rabbit LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation Serious eye damage/irritation	10740 mg/kg (Rat; Experimental value, Rat; Experimental value) > 16000 mg/kg (Rabbit) > 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value, 5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation. : Causes serious eye irritation. : Not classified : Not classified
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Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (pgm) Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity	10740 mg/kg (Rat; Experimental value, Rat; Experimental value) > 16000 mg/kg (Rat; Experimental value, Rat; Experimental value) > 16000 mg/kg (S840 mg/kg bodyweight; Rat; Rat; Experimental value, 5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat; Rat) 15800 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation. : Causes serious eye irritation. : Not classified : Not classified : Sased on available data, the classification criteria are not met
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Ethanol (64-17-5) IARC group	10740 mg/kg (Rat; Experimental value, Rat; Experimental value) > 16000 mg/kg (Rabbit) 0 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value, 5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) Causes skin irritation. : Causes skin irritation. : Causes serious eye irritation. : Not classified Based on available data, the classification criteria are not met : Not classified 1 - Carcinogenic to humans
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (mg/l) LC50 inhalation rat (ppm) Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Ethanol (64-17-5) IARC group Isopropyl Alcohol (2-Propanol) (67-63-0	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) 0 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) 64000 ppm/4h (Rat) : Causes skin irritation. : Causes serious eye irritation. : Not classified Based on available data, the classification criteria are not met : Not classified 1 - Carcinogenic to humans
Ethanol (64-17-5) LD50 oral rat LD50 dermal rabbit Isopropyl Alcohol (2-Propanol) (67-63-0 LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) Methanol (67-56-1) LD50 oral rat LD50 dermal rabbit LC50 inhalation rat (mg/l) LC50 inhalation rat (pm) Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity Ethanol (64-17-5) IARC group	10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit) 0 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) 73 mg/l/4h (Rat) > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat) 15800 mg/kg (Rabbit) 85 mg/l/4h (Rat) Causes skin irritation. : Causes skin irritation. : Not classified Based on available data, the classification criteria are not met : Not classified 1 - Carcinogenic to humans

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Reproductive toxicity	: Not classified
	Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: May cause respiratory irritation. Causes damage to organs (central nervous system, optic nerve) (oral).
Specific target organ toxicity (repeated	: Not classified
exposure)	Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
	Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Central nervous system depression. Dizziness. Headache. Mental confusion. Nausea. Vomiting. Visual disturbances.
Symptoms/injuries upon intravenous administration	: Not available.
Chronic symptoms	: Affection of the renal tissue. Enlargement/affection of the liver. Dry skin. Visual disturbances.

SECTION 12: Ecological information

12.1. Toxicity

Ethanol (64-17-5)		
LC50 fishes 1	14200 mg/l (96 h; Pimephales promelas; Nominal concentration)	
EC50 Daphnia 1	9300 mg/l (48 h; Daphnia magna)	
LC50 fish 2	13000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 2	10800 mg/l (24 h; Daphnia magna)	
Threshold limit other aquatic organisms 1	65 mg/l (72 h; Protozoa)	
Threshold limit algae 1	1450 mg/l (192 h; Microcystis aeruginosa; Growth rate)	
Threshold limit algae 2	5000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
LC50 fishes 1	4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)	
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)	
LC50 fish 2	9640 mg/l (96 h; Pimephales promelas; Lethal)	
EC50 Daphnia 2	13299 mg/l (48 h; Daphnia magna)	
Threshold limit algae 1	> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)	
Threshold limit algae 2	1800 mg/l (72 h; Algae; Cell numbers)	
Methanol (67-56-1)		
LC50 fishes 1	15400 mg/l (96 h; Lepomis macrochirus; Lethal)	
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Lethal)	
LC50 fish 2	10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 2	24500 mg/l (48 h; Daphnia magna)	
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)	
Threshold limit algae 1	530 mg/l (192 h; Microcystis aeruginosa)	
Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)	

12.2. Persistence and degradability

Thymolphthalein, 0.1% in Ethanol		
Persistence and degradability	Not established.	
Ethanol (64-17-5)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.	
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ² /g substance	
Chemical oxygen demand (COD)	1.70 g O ² /g substance	

Ethanol (64-17-5)	
ThOD	2.10 g O ² /g substance
BOD (% of ThOD)	0.43 % ThOD
Isopropyl Alcohol (2-Propanol) (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O ² /g substance
Chemical oxygen demand (COD)	2.23 g O ² /g substance
ThOD	2.40 g O ² /g substance
BOD (% of ThOD)	0.49 % ThOD
Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ² /g substance
Chemical oxygen demand (COD)	1.42 g O ² /g substance
ThOD	1.5 g O ² /g substance
BOD (% of ThOD)	0.8 % ThOD
2.3. Bioaccumulative potential	
Thymolphthalein, 0.1% in Ethanol	
Bioaccumulative potential	Not established.
Ethanol (64-17-5)	
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Isopropyl Alcohol (2-Propanol) (67-63-0)	
Log Pow	0.05 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Methanol (67-56-1)	
BCF fish 1	< 10 (Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other, Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
2.4. Mobility in soil	
Ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)
Isopropyl Alcohol (2-Propanol) (67-63-0)	0.021 N/m (25 °C)
Surface tension	0.021 N/III (23°C)
Methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
12.5. Other adverse effects	
Other information	: Avoid release to the environment.
SECTION 13: Disposal considerat	lions
3.1. Waste treatment methods	
Vaste disposal recommendations	 Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.
SECTION 14: Transport information	on
n accordance with DOT	
Fransport document description	: UN1170 Ethanol solutions, 3, II
JN-No.(DOT)	: 1170
DOT NA no.	: UN1170
03/24/2014	EN (English) 7/1

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DOT Proper Shipping Name Department of Transportation (DOT) Hazard	 Ethanol solutions 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Classes	
Hazard labels (DOT)	: 3 - Flammable liquid
Packing group (DOT) DOT Special Provisions (49 CFR 172.102)	 3 : II - Medium Danger : 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be
	transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	: 4b;150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Additional information	
Other information	: No supplementary information available.
ADR	
Transport document description	:
Transport by sea	
No additional information available	
Air transport	
No additional information available	
SECTION 15: Regulatory information	
15.1. US Federal regulations	
Thymolphthalein, 0.1% in Ethanol	
Listed on the United States TSCA (Toxic Substa	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb
Isopropyl Alcohol (2-Propanol) (67-63-0) Listed on the United States TSCA (Toxic Substatisted on SARA Section 313 (Specific toxic cher	
Methanol (67-56-1)	
Listed on the United States TSCA (Toxic Substa Listed on SARA Section 313 (Specific toxic cher	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard

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15.2. International regulations

CANADA

Thymolphthalein, 0.1% in Ethanol						
Listed on the Canadian DSL (Domestic Sustances List) inventory.						
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects					
Isopropyl Alcohol (2-Propanol) (67-63-0)						
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects					
Methanol (67-56-1)						
Listed on the Canadian DSL (Domestic Sustances List) inventory.						
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects					

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC Not classified

15.2.2. National regulations

Thymolphthalein, 0.1% in Ethanol
Listed on the Canadian Ingredient Disclosure List

Methanol (67-56-1)

Listed on the Canadian Ingredient Disclosure List

15.3. US State regulations	3						
Thymolphthalein, 0.1% in	Ethanol()						
U.S California - Propositio Toxicity	on 65 - Developmental	Yes					
Ethanol (64-17-5)							
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)			
	Yes						
Methanol (67-56-1)							
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)			
	Yes						

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Full text of H-phrases: see section 16:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Carc. 1A	Carcinogenicity, Category 1A	
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A	
Flam. Liq. 2	Flammable liquids, Category 2	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 1	Specific target organ toxicity — single exposure, Category 1	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3,	
	Respiratory tract irritation	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis	
H225	Highly flammable liquid and vapour	
H301	Toxic if swallowed	
H311	Toxic in contact with skin	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H331	Toxic if inhaled	
H335	May cause respiratory irritation	
H336	May cause drowsiness or dizziness	
H350	May cause cancer	
H361	Suspected of damaging fertility or the unborn child	
H370	Causes damage to organs	

NFPA health hazard	: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

		given
Flammability	:	3 Serious Hazard
Physical	:	0 Minimal Hazard
Personal Protection	:	С

SDS US (GHS HazCom 2012)

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