

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 12/17/2013

Revision date: 03/24/2014

Supersedes: 12/17/2013

Version: 1.1

<b>SECTION 1</b>	: Identification of the sub	stance/mixture and of the company/undertaking
1.1. Prod	uct identifier	
Product form		: Mixture
Product name		: Phenolphthalein, 1% in 95% Ethanol
Product code		: LC18220
1.2. Rele	vant identified uses of the subs	tance or mixture and uses advised against
Use of the subs	stance/mixture	: For laboratory and manufacturing use only.
1.3. Deta	ils of the supplier of the safety o	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 <u>info@labchem.com</u> - <u>www.labchem.com</u>		
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

	11005
Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Carc. 2	H351
Repr. 2	H361
STOT SE 1	H370
STOT SE 3	H335

#### 2.2. Label elements

GHS-	US	label	ling

Hazard pictograms (GHS-US)

03/24/2014	P280 - Wear protective gloves, protective clothing, eye protection, face protection	Pad
	P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area	
	P264 - Wash exposed skin thoroughly after handling	
	P260 - Do not breathe mist, vapours, spray	
	P243 - Take precautionary measures against static discharge	
	P242 - Use only non-sparking tools	
	P241 - Use explosion-proof electrical, ventilating, lighting equipment	
	P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment	
	P210 - Keep away from heat, sparks, open flames, hot surfaces No smoking	
	P202 - Do not handle until all safety precautions have been read and understood	
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use	
	H370 - Causes damage to organs (central nervous system, optic nerve) (oral, Derma	il)
	H361 - Developmental toxicity (oral)	
	H351 - Suspected of causing cancer (oral)	
	H335 - May cause respiratory irritation	
	H319 - Causes serious eye irritation	
	H315 - Causes skin irritation	
Hazard statements (GHS-US)	: H225 - Highly flammable liquid and vapour H302 - Harmful if swallowed	
<b>e</b> ( )	-	
Signal word (GHS-US)	: Danger	
	GHS02 GHS07 GHS08	

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P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell 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
P308+P313 - IF exposed or concerned: Get medical advice/attention
P312 - Call a POISON CENTER/doctor/physician if you feel unwell
P330 - If swallowed, rinse mouth
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
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
P235 - Keep cool
P405 - Store locked up
DE04 Disperse of contents to extend on the content with local state and for local providetions

P501 - Dispose of contents/container to comply with local, state and federal regulations

### 2.3. Other hazards

Other hazards not contributing to the : None. classification

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	83.6 - 87.4	Flam. Liq. 2, H225 Carc. 1A, H350 Repr. 2, H361
Isopropyl Alcohol (2-Propanol)	(CAS No) 67-63-0	3.325 - 6.175	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Methanol	(CAS No) 67-56-1	2.85 - 5.7	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Water	(CAS No) 7732-18-5	4	Not classified
Phenolphthalein	(CAS No) 77-09-8	1	Carc. 2, H351

exposed or concerned: Get medical advice/attention. 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: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs Get medical advice/attention.First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.4.2.Most important symptoms and effects, both acute and delayedSymptoms/injuries: Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.Symptoms/injuries: May cause respiratory irritation.	SECTION 4: First aid measures	
exposed or concerned: Get medical advice/attention. 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: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs Get medical advice/attention.First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.4.2.Most important symptoms and effects, both acute and delayedSymptoms/injuries: Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.Symptoms/injuries: May cause respiratory irritation.	4.1. Description of first aid measures	
First-aid measures after skin contact       : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs Get medical advice/attention.         First-aid measures after eye contact       : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.         First-aid measures after ingestion       : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/injuries       : Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.	First-aid measures general :	•
with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs Get medical advice/attention.         First-aid measures after eye contact       : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.         First-aid measures after ingestion       : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/injuries       : Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.         Symptoms/injuries after inhalation       : May cause respiratory irritation.	First-aid measures after inhalation :	
do. Continue rinsing. If eye irritation persists: Get medical advice/attention.         First-aid measures after ingestion       : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/injuries       : Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.         Symptoms/injuries after inhalation       : May cause respiratory irritation.	First-aid measures after skin contact :	with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs:
4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/injuries       :       Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.         Symptoms/injuries after inhalation       :       May cause respiratory irritation.	First-aid measures after eye contact	
Symptoms/injuries: Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.Symptoms/injuries after inhalation: May cause respiratory irritation.	First-aid measures after ingestion :	
Symptoms/injuries after inhalation : May cause respiratory irritation.	4.2. Most important symptoms and effects	, both acute and delayed
	Symptoms/injuries :	Suspected of damaging fertility or the unborn child (Ingestion). Causes damage to organs.
Symptoms/injuries after skin contact Causes skin irritation	Symptoms/injuries after inhalation :	May cause respiratory irritation.
	Symptoms/injuries after skin contact :	Causes skin irritation.

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Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.
4.3. Indication of any immediate medi	cal attention and special treatment needed
No additional information available	
<b>SECTION 5: Firefighting measures</b>	
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	substance or mixture
Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
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.
SECTION 6: Accidental release me	easures
6.1. Personal precautions, protective	equipment 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	
Protective equipment	: Safety glasses. Protective clothing. Gloves. Combined gas/dust mask with filter type A/P3.
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing mist, Vapors, spray.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters. No	otify authorities if liquid enters sewers or public waters.
6.3. Methods and material for contain	
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 persor	nal protection.
<b>SECTION 7: Handling and storage</b>	
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. Take precautionary measures against static discharge. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not breathe mist, vapours, spray.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.
7.2. Conditions for safe storage, inclu	iding any incompatibilities
Tachnical macauras	· Proper grounding propedures to avoid static electricity should be followed. Cround/band

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#### 7.3. Specific end use(s)

### No additional information available

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. **Control parameters**

Ethanol (64-17-5)		
USA OSHA	OSHA PEL (TWA) (mg/m³)	1900 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

Isopropyl Alcohol (2-Propanol) (67-63-0)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	200 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
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 <sup>3</sup>
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. Provide adequate general and local exhaust ventilation.
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.
Other information	: Do not eat, drink or smoke during use.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and	d chemical properties
Physical state	: 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	: 363 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 59 hPa
Vapour pressure at 50 °C	: 300 hPa
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.95 g/ml
Solubility	: Soluble in water. Soluble in methanol. Soluble in acetone.

# Phenolphthalein, 1% in 95% Ethanol Safety Data Sheet

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Log Pow	: No data available		
Log Kow	: No data available		
Viscosity, kinematic	: 2.9 cSt		
Viscosity, dynamic	: No data available		
Explosive properties	: No data available		
Oxidising properties	: No data available		
Explosive limits	: 3.3 - 19 vol %		
	67 - 290 g/m <sup>3</sup>		
9.2. Other information			
VOC content	: 49.5 %		
SECTION 10: Stability and reacti	vitv		
10.1. Reactivity			
No additional information available			
10.2. Chemical stability			
Flammable liquid and vapour. May form flam			
10.3. Possibility of hazardous reaction	ons		
May react violently with oxidants.			
10.4. Conditions to avoid			
Direct sunlight. Extremely high or low tempe	eratures. Open flame. Overheating. Heat. Sparks.		
10.5. Incompatible materials			
Strong acids. Strong bases. Strong oxidizer	28		
10.6. Hazardous decomposition proc			
fume. Carbon monoxide. Carbon dioxide. M	lay release flammable gases.		
CECTION 44. Territoria de site de la ferre			
SECTION 11: Toxicological infor	mation		
SECTION 11: TOXICOlOGICal Infor           11.1.         Information on toxicological eff			
	fects		
11.1. Information on toxicological eff	fects		
11.1.         Information on toxicological eff           Acute toxicity	fects		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)	fects : Harmful if swallowed.		
11.1.       Information on toxicological eff         Acute toxicity         Ethanol (64-17-5)         LD50 oral rat         LD50 dermal rabbit	fects  : Harmful if swallowed.  10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)	fects  : Harmful if swallowed.  10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)  )		
11.1.       Information on toxicological eff         Acute toxicity         Ethanol (64-17-5)         LD50 oral rat         LD50 dermal rabbit	fects  : Harmful if swallowed.  10740 mg/kg (Rat; Experimental value,Rat; Experimental value) > 16000 mg/kg (Rabbit)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)	fects  : Harmful if swallowed.  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;		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 oral rat	fects         : Harmful if swallowed.         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; Rat; Experimental value)         12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 dermal rabbit	fects         : Harmful if swallowed.         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; Rat; Experimental value)         12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 oral rat         LD50 dermal rabbit	fects         : Harmful if swallowed.         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; Rat; Experimental value)         12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 dermal rabbit         LD50 dermal rabbit         Methanol (67-56-1)	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 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; Rat; Experimental value)         12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value)         73 mg/l/4h (Rat)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 oral rat         LD50 dermal rabbit         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 oral rat	fects         : Harmful if swallowed.         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; 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)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 dermal rabbit         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 dermal rabbit	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rabbit)         0)         Image: Sold S mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Rat; Experimental value)         12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; 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)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 dermal rabbit         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 dermal rabbit         LD50 oral rat         LD50 oral rat         LD50 inhalation rat (mg/l)	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rabbit)         D         12870 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)		
11.1.       Information on toxicological eff         Acute toxicity       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 (ppm)	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 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)         15800 mg/kg (Rabbit)         85 mg/l/4h (Rat)         64000 ppm/4h (Rat)		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         LD50 dermal rabbit         LD50 oral rat         LD50 oral rat         LD50 oral rat         LD50 dermal rabbit         LC50 inhalation rat (mg/l)         LC50 inhalation rat (ppm)         Water (7732-18-5)         LD50 oral rat	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 mg/kg (Rabbit)         D         S045 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)         ≥ 90000 mg/kg		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0)         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)         Water (7732-18-5)         LD50 oral rat         Skin corrosion/irritation	fects         : Harmful if swallowed.         10740 mg/kg (Rat; Experimental value,Rat; Experimental value)         > 16000 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)         12870 mg/kg (1187-2769 mg/kg bodyweight; 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)         ≥ 90000 mg/kg         ≥ 90000 mg/kg         : Causes skin irritation.		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0         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)         Water (7732-18-5)         LD50 oral rat         Skin corrosion/irritation         Serious eye damage/irritation	fects         : Harmful if swallowed.         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)         15800 mg/kg (Rabbit)         85 mg/l/4h (Rat)                  > 5000 mg/kg (Rabbit)         85 mg/l/4h (Rat)         64000 ppm/4h (Rat)		
11.1.Information on toxicological effAcute toxicityEthanol (64-17-5)LD50 oral ratLD50 dermal rabbitIsopropyl Alcohol (2-Propanol) (67-63-0LD50 dermal rabbitLD50 dermal rabbitLD50 dermal rabbitLC50 inhalation rat (mg/l)Methanol (67-56-1)LD50 dermal rabbitLC50 inhalation rat (mg/l)LC50 inhalation rat (mg/l)LC50 inhalation rat (ppm)Water (7732-18-5)LD50 oral ratSkin corrosion/irritationSerious eye damage/irritationRespiratory or skin sensitisation	fects         : Harmful if swallowed.         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)               2 90000 mg/kg         : Causes skin irritation.         : Causes serious eye irritation.         : Not classified		
11.1.       Information on toxicological eff         Acute toxicity       Ethanol (64-17-5)         LD50 oral rat       LD50 dermal rabbit         Isopropyl Alcohol (2-Propanol) (67-63-0         LD50 dermal rabbit         LC50 inhalation rat (mg/l)         Methanol (67-56-1)         LD50 dermal rabbit         LC50 inhalation rat (mg/l)         Stin corrosion/irritation         Serious eye damage/irritation	fects         : Harmful if swallowed.         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)         15800 mg/kg (Rabbit)         85 mg/l/4h (Rat)                  > 5000 mg/kg (Rabbit)         85 mg/l/4h (Rat)         64000 ppm/4h (Rat)		

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Phenolphthalein (77-09-8)	
IARC group	2B - Possibly carcinogenic to humans
Ethanol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Isopropyl Alcohol (2-Propanol) (67-63-0)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Developmental toxicity (oral).
Specific target organ toxicity (single exposure)	: Causes damage to organs (central nervous system, optic nerve) (oral, Dermal). May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
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	: Swallowing a small quantity of this material will result in serious health hazard.

# **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 guadricauda)		

Phenolphthalein, 1% in 95% Ethanol		
Persistence and degradability Not established.		
Phenolphthalein (77-09-8)		
Persistence and degradability	Biodegradability in water: no data available. Photodegradation in the air.	

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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 <sup>2</sup> /g substance	
Chemical oxygen demand (COD)	1.70 g O <sup>2</sup> /g substance	
ThOD	2.10 g O <sup>2</sup> /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 <sup>2</sup> /g substance	
Chemical oxygen demand (COD)	2.23 g O <sup>2</sup> /g substance	
ThOD	2.40 g O <sup>2</sup> /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 <sup>2</sup> /g substance	
Chemical oxygen demand (COD)	1.42 g O <sup>2</sup> /g substance	
ThOD	1.5 g O <sup>2</sup> /g substance	
BOD (% of ThOD)	0.8 % ThOD	
Water (7732-18-5)		
Persistence and degradability	Not established.	
2.3. Bioaccumulative potential		
Phenolphthalein, 1% in 95% Ethanol	Natastalishad	
Bioaccumulative potential	Not established.	
Phenolphthalein (77-09-8)		
Log Pow	2.41 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
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).	
Water (7732-18-5)		
Bioaccumulative potential	Not established.	
•		
2.4. Mobility in soil		
Ethanol (64-17-5)		
Surface tension	0.022 N/m (20 °C)	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
Surface tension	0.021 N/m (25 °C)	
Methanol (67-56-1)		
Surface tension	0.023 N/m (20 °C)	
2.5 Other adverse effects		
2.5. Other adverse effects Other information	: Avoid release to the environment.	
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SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Waste 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	
In accordance with DOT	
Transport document description	: UN1170 Ethanol solutions, 3, II
UN-No.(DOT)	: 1170
DOT NA no.	: UN1170
DOT Proper Shipping Name	: Ethanol solutions
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid
Packing group (DOT)	: II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	<ul> <li>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.</li> <li>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.</li> <li>T4 - 2.65 178.274(d)(2) Normal</li></ul>
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)	: 60 L
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	
Phenolphthalein, 1% in 95% Ethanol	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Fire hazard Delayed (chronic) health hazard
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Phenolphthalein (77-09-8)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)			
Isopropyl Alcohol (2-Propanol) (67-63-0)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)			
Methanol (67-56-1)	Methanol (67-56-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)			
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		
Water (7732-18-5)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			

### 15.2. International regulations

### CANADA

Phenolphthalein, 1% in 95% Ethanol	
WHMIS Classification	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 Class B Division 2 - Flammable Liquid
Phenolphthalein (77-09-8)	
Listed on the Canadian DSL (Domestic Sustances	s List) inventory.
WHMIS Classification	Class D Division 2 Subdivision A - Very 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	s 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
Water (7732-18-5)	
Listed on the Canadian DSL (Domestic Sustances	s List) inventory.
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

### **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

### Phenolphthalein (77-09-8)

Listed on the Canadian Ingredient Disclosure List

### Methanol (67-56-1)

Listed on the Canadian Ingredient Disclosure List

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### Water (7732-18-5)

Not listed on the Canadian Ingredient Disclosure List

### 15.3. US State regulations

Phenolphthalein (77-09-8)				
U.S California - Proposition 65 -	U.S California - Proposition 65 -	U.S California - Proposition 65 -	U.S California - Proposition 65 -	No significance risk level (NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity - Female	Reproductive Toxicity - Male	
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			

# **SECTION 16: Other information**

Other information

: None.

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
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1A	Carcinogenicity, Category 1A
Carc. 2	Carcinogenicity, Category 2
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
H302	Harmful 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
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs

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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
Flammability	: 3 Serious Hazard
Physical	: 0 Minimal Hazard
Personal Protection	: H

SDS US (GHS HazCom 2012)

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