

# SECTION 1 - IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Uro-Bond®

Product Code(s): 500003, 5000015.

Synonym(s): Ethyl Acetic Ether, Ethyl Ethanoate, Acetic Acid Ethyl Ester, Acetic Ester,

Acetoxyethane, Ethyl Acetic Ester, Silicone dispersion.

CAS Number: 141-78-6

SDS Number/Grade: 3

EC Number: 205-500-4
EU Index Number: 607-022-00-5

Research Registration Number: 01-2119475103-46-0000

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified use(s): Possible applications for Uro-Bond adhesives might include, but are not limited to:

adhering dressings, prosthetics and metal or plastic devices to the body. Securing male external urinary catheters, adhering colostomy, ileostomy and tracheostomy devices, attaching electrodes to the skin for patient monitoring, affixing surgical dressings and

pads to the skin and adhering maxillo-facial prosthetic devices.

Restrictions on Use: Not recommended as for use as a permanent adhesive. Other uses than those

recommended.

1.3 Details of Supplier of the Safety Data Sheet

Manufacturer/Responsible Party: Urocare Products, Inc.

2735 Melbourne Avenue Pomona, CA 91767-1931

U. S. A.

Telephone (General): +1 (909) 621-6013

Email Address (Technical): <a href="mailto:cust.support@urocare.com">cust.support@urocare.com</a>

1.4 Emergency Telephone No.

Manufacturer: +1 (800) 457-4280 - InfoTrac - within USA & Canada

Manufacturer: +1 (323) 352-3500 - InfoTrac - outside USA & Canada (collect calls accepted).

# **SECTION 2 - HAZARD(S) INDENTIFICATION**

**EU/EEC** According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]. According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of Substance or Mixture

CLP Flammable liquids and vapors, Hazard Category 2; H225.

Serious eye damage/irritation, Hazard Category 2; H319.

Specific target organ toxicity — Single exposure, Hazard Category 3, Narcosis; H336.

DSD/DPD Highly Flammable (F); R11

Irritating to Skin (Xi); R38

Risk of serious damage to eyes (Xi); R41

2.2 Labeled Elements

CLP DANGER





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Hazard Statements: H225: Highly flammable liquid and vapor.

H319: Causes serious eye damage/irritation. H336: May cause drowsiness or dizziness.

2.3 Precautionary Statements

Prevention: P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/Bond container and receiving equipment.

P241: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge. P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling

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

P280: Wear protective gloves/protective clothing/eye protection/face protection. P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry

chemical for small fires for extinction.

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

P405: Store locked up.

Response: P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water [or shower].

P304+P340: IF INHALED: Remove 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. P337+P313: If eye irritation persists: Get medical advice/attention. P312: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage/Disposal: P501: Dispose of contents/container in accordance with applicable local, county, state

and federal regulations.

Supplemental: EUH066: Repeated exposure may cause skin dryness or cracking.

DSD/DPD Symbols & Pictograms: F, Xi





Risk Phrases: R11: Highly flammable.

R20: Harmful by inhalation. R22: Harmful if swallowed. R36: Irritating to eyes.

Safety Phrases: S3: Keep container tightly closed.

S7: Keep container in a cool place.

S8: Keep container dry.

S9: Keep container in a well-ventilated place.

S23: Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the

manufacturer).

S24: Avoid contact with skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

2.4 Other Hazards

CLP According to regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD This product is considered dangerous according to the European Directive 67/548/EEC.

# United States (US) According to OSHA 29 CFR 1910.1200 HCS

# 2.5 Classification of the Substance or Mixture

OSHA HCS 2012 Highly Flammable (F); R11

Irritating to Skin (Xi); R38

Risk of serious damage to eyes (Xi); R41

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## 2.6 Label elements

OSHA HCS 2012







Hazard Statements:

H225: Highly flammable liquid and vapor. H319: Causes serious eye damage/irritation. H336: May cause drowsiness or dizziness.

# 2.7 Precautionary Statements

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/Bond container and receiving equipment.

P241: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

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P264: Wash hands thoroughly after handling

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P280: Wear protective gloves/protective clothing/eye protection/face protection. P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry

chemical for small fires for extinction.

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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.

P337+P313: If eye irritation persists: Get medical advice/attention.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage/Disposal: P501: Dispose of contents/container in accordance with applicable local, county, state

and federal regulations.

Supplemental: EUH066: Repeated exposure may cause skin dryness or cracking.

2.8 Other Hazards

OSHA HCS 2012 Under United States Regulations (29 CFR 1910.1200 – Hazard Communication Standard),

this product is considered hazardous.

# Canada (CA) According to WHMIS

## 2.9 Classification of the Substance or Mixture

WHMIS Highly Flammable (F)

2.10 Label elements

WHMIS

Flammable – F

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## 2.11 Other Hazards

WHMIS

In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

#### SECTION 3 - COMPOSITION & INFORMATION ON INGREDIENTS

#### 3.1 Substances

			COMPOSITION		
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Ethyl Acetate	CAS: 141-78-6 EC No. 205-500-4	50%	Acute Ingestion/Oral mg/kg – Rat LD <sub>50</sub> : 5.60 Inferred from ingredient hazard(s). Acute Inhalation – Rat LC <sub>50</sub> : 16,000 ppm/6 hour(s). Acute Dermal ml/kg – Rat LD <sub>50</sub> : > 20,000 (Rabbit) (highest dose tested). Skin Irritation: Very Slight (Rabbit). Skin Sensitization: None (Human). Eye Irritation: Slight (Rabbit).	EU DSD/DPD: Annex I: F; R11, Xi; R38, R41. EU CLP: Annex VI: Flammable Liquids 2; H225, Eye Damage/Irritation 2; H319, Organ Toxicity 3, H336. OSHA HCS 2012: Flammable Liquids 2; H225, Eye Irritant 2; H319, Eye Irritant 3; H336.	NDA

## 3.2 Mixtures

Under Regulation (EC) No. 1272/2008, this product is classified as a mixture. All other substances contained in this product are below reportable quantities.

#### **SECTION 4 - FIRST AID MEASURES**

## 4.1 Description of First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Oxygen may be given by

qualified personnel if breathing is difficult. Obtain medical attention. Any material aspirated during vomiting may cause lung injury; therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means of least likely to cause aspiration (e.g.

gastric lavage after endotracheal intubation).

Skin: Remove contaminated clothing and wash skin with soap and water. Wash contaminated

clothing before reuse.

Eye Contact: Flush with water and continue washing for at least 15 minutes. Obtain medical attention

if symptoms persist.

Ingestion: If individual is fully conscious, give two glasses of water or milk at once. Do not induce

vomiting. Obtain medical attention immediately.

# 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Irritant effects, drowsiness, dizziness, narcosis, nausea, headache, vision impairment. Drying and defatting of the skin.

# 4.3 Indication of immediate medical attention and special treatment needed

Notes to Physician:

All treatments should be based on observed signs and symp

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## 4.4 Other Information

No further information is available. Always seek medical attention if irritation continues.

When calling 911 or emergency medical service, ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

#### SECTION 5 - FIRE-FIGHTING MEASURES

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# 5.1 Extinguishing Media

Suitable Extinguishing Media: Alcohol-resistant foam, dry chemical powder, carbon dioxide applied by manufacturer's

recommended techniques for large fires. Use carbon dioxide, dry chemical or water mist

for small fires

Unsuitable Extinguishing Media: Water in a jet.

## 5.2 Special Hazards Arising from the Substance or Mixture

Highly flammable liquid. Vapors may form explosive mixtures with air. Vapor may cause Unusual Fire & Explosion Hazards:

flash fires. Vapors may accumulate in low or confined areas, travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create a fire or

explosion hazard. Containers may explode when heated.

Hazardous Combustion Products: Hazardous combustion products may include carbon monoxide.

## **5.3 Advice for Firefighters:**

Special Fire Fighting Equipment: Use NIOSH approved positive-pressure self-contained breathing apparatus (SCBA) and

protective clothing should be worn in fighting fires involving chemicals which produce carbon, carbon dioxide, carbon monoxide, etc. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the

substance is possible.

Keep unauthorized personnel away.

Evacuate residents who are downwind of fire

Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

# 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions: Take care floor surface will be slippery at site of spillage. Ventilate enclosed areas. Do

not touch damaged containers or spilled material unless wearing appropriate protective

clothing.

Non-Emergency Personnel: Evacuate the danger zone; follow emergency precautions. Secure emergency assistance

immediately. Avoid contact with the material; do not breath vapors or aerosol. If possible,

provide additional ventilation.

Do not take action without proper training and emergency equipment. See Section 8 for **Emergency Responders:** 

additional information. Evacuate surrounding areas. Eliminate all ignition sources including flares and all open flames. Avoid all contact with spilled material. Maintain

adequate ventilation and wear appropriate respiratory protection.

Keep unauthorized personnel away. Dike spill using absorbent or impervious materials **Emergency Procedures:** 

such as earth, sand or clay. Dike or retain dilution water or water from firefighting for

later disposal.

# 6.2 Protective Equipment

Eyes: Wear standard goggles or face shield—Safety glasses at a minimum.

Skin: Washing with soap and water after use/handling is adequate. Remove contaminated

clothing and shoes as-soon-as practical and clean thoroughly before reuse. Rubber or

plastic gloves are recommended.

#### 6.3 Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas. Runoff from fire control or dilution water may cause pollution.

## 6.4 Methods and Material for Containment and Cleaning-up

Containment/Clean-up Measures:

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Collect and contain spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite or diatomaceous earth) and place in a container for disposal

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according to local regulations. Use spark-proof tools and explosion proof equipment. Contaminated absorbent material may pose the same hazard(s) as the spilled product.

#### 6.5 Reference to Other Sections

Refer to Section 8 – Exposure Controls/Personal Protection and Section 13 – Disposal Considerations.

## **SECTION 7 - HANDLING AND STORAGE**

# 7.1 Precautions for Safe Handling

Handling:

Do not get in eyes. Avoid breathing vapors and mists. Do not ingest. Handle and open container with care. Use only with adequate ventilation. Keep away from heat. Keep away from sources of ignition—no smoking.

# 7.2 Conditions for Safe Storage, Including Any Incompatibilities

Storage:

Normal precautions common to safe manufacturing practices should be followed in handling and storage. Keep container closed, in a cool, dry place. Store in a dry, well-ventilated place—ventilate enclosed areas. Store locked-up. Do not breathe fumes. Flammable. Harmful if swallowed or inhaled.

Other Precautions:

WARNING! Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below those published in the literature as "auto ignition" or "ignition" temperatures. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure changes. Ignition may occur at typical elevated-temperature process conditions, especially in processes operation under vacuum if subjected to sudden ingress of air or outside process equipment operating under elevated pressure if sudden escape of vapors or mists into the atmosphere occurs. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained—refer to § 10.6 "Incompatibility".

# 7.3 Specific End Use(s)

7.4 Training Advice

Refer to Section 1.2 - Relevant Identified uses.

Provide safety information, instruction and training to operators handling Ethyl Acetate.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control Parameters

EXPOSURE LIMITS/GUIDELINES								
	Result	ACGIH	Argentina	Australia	Austria	Belgium		
Ethyl	STEL	400 ppm (1400 mg/m³)	1400 mg/m³ [CMP-CPT	] 1400 mg/m <sup>3</sup>	Not Established	Not Established		
Acetate (141-78-6)	TWA	400 ppm (1400 mg/m³)	720 mg/m <sup>3</sup> [CMP]	720 mg/m <sup>3</sup>	Not Established	1461 mg/m <sup>3</sup>		
	MAK	Not Established Not Established		Not Established	1500 mg/m³ (400 mL/m³)	Not Established		
EXPOSURE LIMITS/GUIDELINES (CONTINUED)								
Ethyl	Result	China	hina Czechia		Egypt	Finland		
Acetate	I STEL I 1400 mg/m³ I Not Fetablished		Not Established	1080 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>	1800 mg/m <sup>3</sup>		
(141-78-6)	TWA	720 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	540 mg/m <sup>3</sup>	720 mg/m <sup>3</sup>	1100 mg/m <sup>3</sup>		
(141-70-0)	MAK	Not Established	2 mg/m <sup>3</sup> Ceiling	Not Established	Not Established	Not Established		
		E	EXPOSURE LIMITS/GUIDE	LINES (CONTINUED	))			
Ethard	Result	France	Germany	Greece	Hong Kong	Hungary		
Ethyl Acetate	STEL	1400 mg/m³ [VME]	Not Established	1400 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>		
(141-78-6)	TWA	Not Established	Not Established	720 mg/m <sup>3</sup>	720 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>		
(141-70-0)	MAK	Not Established	1500 mg/m <sup>3</sup> (400 mL/m <sup>3</sup> )	Not Established	Not Established	Not Established		
EXPOSURE LIMITS/GUIDELINES (CONTINUED)								
Ethyl	Result	India	Indonesia	Ireland	Israel	Italy		
Acetate	STEL	1400 mg/m <sup>3</sup>	Not Established	Not Established	Not Established	Not Established		
(141-78-6)	TWA	720 mg/m <sup>3</sup>	720 mg/m <sup>3</sup>	1461 mg/m <sup>3</sup>	1461 mg/m <sup>3</sup>	1461 mg/m <sup>3</sup>		

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	EXPOSURE LIMITS/GUIDELINES (CONTINUED)								
Ethyl	Result	Japan	Korea	Malaysia		Mexico	Net	herlands	
Acetate	STEL	1400 mg/m <sup>3</sup> [OEL]	1400 mg/m <sup>3</sup>	No	t Established	1400 mg/m <sup>3</sup>	550	mg/m³ [MAC-TGG]	
(141-78-6)	TWA	720 mg/m <sup>3</sup> [OEL]	400 mg/m <sup>3</sup>	400	) mg/m³	1400 mg/m <sup>3</sup>	Not	Established	
	EXPOSURE LIMITS/GUIDELINES (CONTINUED)								
Ethyl	Result	New Zealand	NIOSH	No	rway	OSHA	The	Philippines	
Acetate	STEL	Not Established	1400 mg/m <sup>3</sup>	No	t Established	1400 mg/m <sup>3</sup>	Not	Established	
(141-78-6)	TWA	720 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>	550	) mg/m³	1400 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>		
	EXPOSURE LIMITS/GUIDELINES (CONTINUED)								
Ethyl	Result	Poland	Portugal	Sin	gapore	South Africa	Spa	ain	
Acetate	STEL	600 mg/m³ [MAC]	1400 mg/m <sup>3</sup> [VLE-CD]	1400 mg/m <sup>3</sup>		1400 mg/m <sup>3</sup>		550 mg/m <sup>3</sup>	
(141-78-6)	TWA	720 mg/m³ [MAC]	1400 mg/m³ [VLE- 140 MP]		00 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>	140	00 mg/m <sup>3</sup>	
EXPOSURE LIMITS/GUIDELINES (CONTINUED)									
Ethyl	Result	Sweden	Switzerland		Taiwan	United Kingdom		Venezuela	
Acetate	STEL	1100 mg/m <sup>3</sup>	2800 mg/m <sup>3</sup> [KZG-W]		1400 mg/m <sup>3</sup>	1400 mg/m <sup>3</sup>		1400 mg/m <sup>3</sup> [LEB]	
(141-78-6)	TWA	500 mg/m <sup>3</sup>	Not Established		1400 mg/m <sup>3</sup>	720 mg/m <sup>3</sup>		720 mg/m³ [CAP]	
(141 70-0)	MAK	Not Established	1400 mg/m³ [MAK-W]	400 mg/m³ [MAK-W]		ned Not Established		Not Established	

## 8.2 Exposure Controls

Engineering Measures/Controls:

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

## 8.3 Personal Protective Equipment

Hygiene Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Discard contaminated clothing or wash thoroughly before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes/Face Protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or

Skin and Body Protection:

Flame retardant antistatic protective clothing.

Hand Protection:

No special requirements for small amounts. For larger amounts, chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is required.

Glove Material:

Butyl or nitrile rubber. Glove thickness should be 0.7 mm or thicker. Break through time:

> 240 minutes.

Respiratory System:

No special requirements for small amounts. For larger amounts, a properly fitted air purifying respirator or air supply respirator should be worn if a risk assessment indicates that respiratory protection is necessary. Respirator selection must be based upon known or measured levels of exposure.

Other Protective Equipment: None required.

# 8.4 General Industrial Hygiene Considerations

Do not get in eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Handle in accordance with good industrial hygiene and safety practices.

**Environmental Exposure Controls:** Follow best practice for site management and disposal of waste.

# **SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES**

# 9.1 Information on Physical and Chemical Properties **Material Description:**

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Physical Form: Volatile Liquid and suspension.

Appearance Description: Clear to yellowish liquid.

Color: Clear to yellowish liquid.

Odor: Sweet, ethereal/solvent odor.

Odor Threshold: Data lacking.

Taste: Bittersweet, fruity, wine-like burning taste.

**General Properties:** 

 $\begin{array}{lll} \mbox{Boiling Point:} & > 400^{\circ} \mbox{ F (204° C)}. \\ \mbox{Melting Point:} & \mbox{Not Applicable.} \\ \mbox{Freezing Point:} & \mbox{Not Applicable.} \\ \mbox{Decomposition Temperature:} & > 300^{\circ} \mbox{ F (150° C)} \,. \end{array}$ 

PH: Not Available.

Specific Gravity/Relative Density: 1.05 [Water=1 @ 77° F (25° C)].

Water Solubility: Insoluble.

Viscosity: Not Determined, but similar to engine oil.

Explosive Properties: Stable under normal operating conditions.

Oxidizing Properties: Not relevant.

**Volatility:** 

Vapor Pressure: 1.5mm at 320° F (160° C).

Vapor Density: 21.8.

Evaporation Rate: < 1 (Ether=1).

Flammability:

Flash Point: 24° F (-4.5° C), Tag Closed Cup (TCC).

UEL 11%. LEL 2.2%.

Autoignition Point: 798.8° F (426° C).

Flammability (Solid/Gas): Flammable.

OSHA Flammability Class: IB.

Dielectric Strength: Not determined.

Critical Temperature: 482° F (250° C).

Percent Volatile by Volume: 50%.

Pour Point: Not determined.

**Environmental:** 

Octanol/Water Partition Coefficient: Not Determined.

9.2 Other Information

No additional physical and chemical parameters noted.

Hazard Identification:

Hazard Category:

		Classification			Labeling	Specific			
Index No.	International Chemical Identification	EC No.	CAS No.	Hazard Class and Category Code(s)	Hazard Statement Code(s)	Pictogram Signal Word Code(s)	Hazard Statement Code(s)	Suppl. Hazard Statement Code(s)	Conc. Limits, M-Factors
607-022-00-5	Ethyl Acetate	205-500-4	141-78-6	Flam. Liq. 2 Eye Irritant 2 STOT SE 3	F Xn Xi R:11/36/66/67	GHS02 GHS07	H225 H319 H336	EUH066	50



## **SECTION 10 - STABILITY AND REACTIVITY**

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical Stability

Stable.

10.4 Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4 Conditions to Avoid

Incompatible materials.

10.5 Incompatible Materials

Avoid strong oxidizing agents, strong reducing agents, bases and certain metals.

## 10.6 Hazardous Decomposition Products

Oxides of carbon (CO, CO<sub>2</sub>), Acetic acid (from hydrolysis or incomplete combustion), Ethanol (possible in hydrolysis reactions), Aldehydes and other volatile organics (under partial combustion) may be produced upon decomposition. When heated to decomposition (typically > 200°C or during fire), silicone materials can release: Silica (SiO<sub>2</sub>) (solid residue), Formaldehyde, Methanol or ethanol (from side groups), Siloxanes or volatile organosilicon compounds, and Hydrogen gas (H<sub>2</sub>) — in some formulations.

#### **SECTION 11 - TOXICOLOGICAL INFORMATION**

## 11.1 Information on Toxicological Effects

NAME	CAS NO.	TYPE OF TEST/RESULTS/COMMENTS
Ethyl Acetate 50% <sup>†</sup>	141-78-6	Acute Toxicity: Ingestion/Oral-Rat LD $_{50}$ • 5,620 mg/kg • Comments: Moderate toxicity; Dermal-Rabbit LD $_{50}$ • > 20,000 mg/kg • Comments: Low dermal toxicity—highest dose tested; Inhalation-Rat LC $_{50}$ • 16,000 ppm/4 hour(s); Irritation: Eye-Rabbit • Moderate • Comments: Causes moderate eye irritation; Skin-Rabbit • Very slight; • Comments: May cause mild irritation with prolonged contact; Skin Sensitization-Human • None • Comments: Not classified as a skin sensitizer. Studies (e.g., guinea pig maximization tests) have shown no evidence of allergic skin reactions. Prolonged or repeated contact may irritate the skin, but not sensitize it; Inhalation-Human • None • Comments: Not a known respiratory sensitizer. Vapors can cause irritation of the nose, throat, and lungs at high concentrations, but this is not allergic sensitization.

<sup>†</sup> Ethyl acetate is not considered a skin or respiratory sensitizer. However, it can cause irritation with repeated or high-concentration exposure.

STANDARD CLASSIFICATION			
GHS	No classification for sensitization.		
REACH dossiers / ECHA No sensitization observed in available animal or human data.			
NIOSH/OSHA/ACGIH	Do not list ethyl acetate as a sensitizer.		

**Teratogenicity:** Ethyl acetate is not considered teratogenic in humans or animals under normal exposure conditions.

Chronic Exposure: Central Nervous System (CNS): Symptoms may include: Headache, fatigue, dizziness, sleep disturbances, mild neurobehavioral changes (in high, prolonged exposures)—these effects are reversible once exposure ends. Liver and Kidney: Animal studies (high-dose inhalation or ingestion) show some liver and kidney changes, such as: Liver enzyme elevation and mild histological changes—No conclusive human data confirming these effects at workplace exposure levels. Respiratory System: Chronic inhalation can lead to: Throat and nasal irritation, coughing, and potential bronchial inflammation—usually only in poorly ventilated or high-exposure conditions. Skin and Eyes: Repeated skin contact may cause: Dryness, cracking, and Dermatitis (from defatting the skin)—No allergic sensitization noted with long-term contact.

Long-Term Cancer Risk?: No evidence of carcinogenicity in animal or human studies. Not listed as a carcinogen by: IARC, OSHA, NIOSH or ACGIH.

Reproductive Toxicity: Ethyl acetate is not considered a reproductive toxicant under normal exposure conditions, based on both animal data and regulatory assessments.

Carcinogenic Effects: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

Other Toxic Effects: May cause damage to the following organs: mucous membranes and upper respiratory tract, blood, kidneys, liver and central nervous system (CNS). Hazardous in case of ingestion or inhalation. Slightly hazardous in case of skin contact (irritant, permeator).

#### SECTION 12 - ECOLOGICAL INFORMATION

## 12.1 Toxicity

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**Ecotoxicity:** In water: Fish-Fathead minnow:  $LC_{50}$  96 hours: ~220 mg/L, Fish-Indian catfish:  $LC_{50}$  96 hours: 212.5ppm— Acute toxicity. Water flea-Daphnia magna:  $EC_{50}$  48 hours: ~560/mg/L—Moderate toxicity. Algae- Scenedesmus subspicatus:  $EC_{50}$  72 hours: ~2,060/mg/L—Low toxicity.

**BOD**<sub>5</sub> and **COD:** BOD<sub>5</sub>  $\approx$  1,600–1,700 mg  $O_2/g$ —this is a high BOD<sub>5</sub>, indicating that ethyl acetate is readily biodegradable and consumes a significant amount of oxygen during microbial breakdown. COD  $\approx$  2,000–2,200 mg  $O_2/g$ —this is the total oxygen demand needed to chemically oxidize ethyl acetate (including what microbes can't process).

## 12.2 Products of Biodegradation

Hydrolysis of Ethyl Acetate: Ethyl acetate is hydrolyzed by esterases into: Ethanol ( $C_2H_5OH$ ) and Acetic acid ( $CH_3COOH$ ). Further Oxidation: Ethanol is oxidized by microbes to: Acetaldehyde ( $CH_3CHO$ ) (intermediate) and then to acetic acid. Acetic acid enters the citric acid cycle (Krebs cycle) in microbes, converting to: Carbon dioxide ( $CO_2$ ), Water ( $H_2O$ ) and biomass (microbial growth).

## 12.3 Toxicity of the Products of Biodegradation

Ethanol: Low to moderate toxicity in aquatic organisms at high concentrations, commonly metabolized by many species, rapidly biodegradable, and evaporates easily. Acetic Acid: Mildly toxic to aquatic life at high concentrations (can cause pH changes), naturally present in the environment, biodegradable and metabolized by microbes. Carbon Dioxide (CO<sub>2</sub>): Non-toxic, naturally occurring atmospheric gas, excess can contribute to acidification in water, but generally not toxic directly, non-toxic and essential for life. Water (H<sub>2</sub>O): Non-toxic and essential for life.

## 12.4 Chemical Fate Information

Air: Due to its high vapor pressure and Henry's law constant, ethyl acetate readily volatilizes from water and soil into the atmosphere; however, the silicone portion of the product is nonvolatile. Water: Highly soluble and readily biodegradable; however, the silicone portion of the product may float on water or form surface films or droplets. It tends to remain in the aqueous phase but is quickly broken down by microbes. Soil/Sediment: Ethyl acetate has low adsorption to soil particles because of low hydrophobicity, so it can move freely through soil and potentially reach groundwater. The silicone portion of the product is strongly adsorbed to particles with low mobility, tends to accumulate, can persist for long periods in both soil and sediment.

## 12.5 Other Information

None at the time of this printing.

#### **SECTION 13 - DISPOSAL CONSIDERATIONS**

## 13.1 Waste Disposal Methods

Product Waste: Dispose of content and/or container in accordance with local, regional, national and/or

international regulations.

Packaging Waste: Dispose of content and/or container in accordance with local, regional, national and/or

international regulations.

Other Information: The product is NOT biodegradable. In its purchased form (3 fl. ozs. (88.7 mL.) or less),

the product does not require any special disposal methods; however, disposal in

accordance with applicable local, county, state and federal regulations is recommended.

# **SECTION 14 - TRANSPORTATION INFORMATION**

## 14.1 Material identification

Authority	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Hazard Label	Packing Group	
DOT <sup>†</sup>	N/A	Consumer Commodity ORM-D	N/A	N/A	N/A	
TDG/ADR†	N/A	Consumer Commodity ORM-D	N/A	N/A	N/A	2
RID	UN1173	Ethyl Acetate	3	Flammable Liquid	II	
ICAO/IATA	UN1173	Ethyl Acetate	3	Flammable Liquid	II	`
IMO/IMDG	UN1173	Ethyl Acetate	3	Flammable Liquid	II	Fire Dia



<sup>†</sup>Labeling: Product is exempt from labeling requirements in containers under 0.3 gallons (1 Liter). Regulation 49 CFR § 173.118(a).

#### 14.2 ADR Tunnel Code Restrictions

This list contains tunnel restriction codes for those substances and/or chemically related entries which are found in chapter 3.2 of the ADR regulations. ETHYL ACETATE (141-78-6) Restriction(s): D/E {UN1173} (II)

## **SECTION 15 - REGULATORY COMPLIANCE INFORMATION**

# 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

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SARA Hazard Classifications: Acute.

INVENTORY								
Component	CAS NO.	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS		
Ethyl Acetate	141-78-6	Yes	No	Yes	Yes	No		
	INVENTORY (CONTINUED)							
Component	CAS NO.	New Zealand	Philippines PICCS	TSCA				
Ethyl Acetate	141-78-6	Yes	Yes	Yes				

Canada (CA)

Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)

Ethyl Acetate 141-78-6 Not Listed

Canada - WHMIS - Classifications of Substances

Ethyl Acetate 141-78-6 Class B2 – Flammable liquid (Flash point below

37.8°C) Class D2B – Eye irritant (Causes serious eye irritation); Class D2A or D2B\* (depending on evidence, may cause drowsiness or dizziness).

Canada - WHMIS - Ingredient Disclosure List

Ethyl Acetate 141-78-6 1 %

Canada – 2004 NPRI (National Pollutant Release Inventory)

Ethyl Acetate 141-78-6 Deleted

Canada - 2005 NPRI (National Pollutant Release Inventory)

Ethyl Acetate 141-78-6 Not Listed

Canada – CEPA – Greenhouse Gases Subject to Mandatory Reporting

Ethyl Acetate 141-78-6 Not Listed

Canada – CEPA – Priority Substances List

Ethyl Acetate 141-78-6 Not Listed

Canada – DWQ (Drinking Water Quality) – IMACs

Ethyl Acetate 141-78-6 Not Listed

Canada – Accelerated Reduction/Elimination of Toxics (ARET)

Ethyl Acetate 141-78-6 Not Listed

Canada (CA) - New Brunswick

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

Ethyl Acetate 141-78-6 Not Listed

Canada – New Brunswick – Ozone Depleting Substances – Schedule B

Ethyl Acetate 141-78-6 Not Listed

Germany (DE)

Germany - TA Luft - Types and Classes

Ethyl Acetate 141-78-6 Listed, but it is not assigned to a specific substance class within the regulation. Instead, it is categorized

under the general group of organic solvents.

Germany – Water Classification (VwVwS) – Annex 1

Ethyl Acetate 141-78-6 Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

Ethyl Acetate 141-78-6 Listed

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Germany – Water Classification (VwVwS) – Annex 3

Ethyl Acetate 141-78-6 Listed

Philippines (PH)

Philippines - Priority Chemical List

Ethyl Acetate 141-78-6 Listed

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# Singapore (SG)

Singapore – Corrosive and Explosive Substances – Corrosive Substances

Ethyl Acetate 141-78-6 Listed

Thailand (TH)

Thailand - Quantities of Chemicals

Ethyl Acetate 141-78-6 1 ton (1000 kg) per year

Thailand – Water Quality Criteria – Maximum Concentration Allowance

Ethyl Acetate 141-78-6 Not Listed

United States (US)

United States - OSHA - Process Safety management - Highly Hazardous Chemicals

Ethyl Acetate 141-78-6 10,000 pounds (4,536 kilograms) or more.

United States - OSHA - Specifically Regulated Chemicals (29 CFR 1910.1001-10150)

Ethyl Acetate 141-78-6 Not Listed

United States - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

Ethyl Acetate 141-78-6 Not Listed

United States - CAA (Clean Air Act) - Class II Ozone Depletors

Ethyl Acetate 141-78-6 Not Listed
United States – CWA (Clean Water Act) Section 311 – Hazardous Substances (40 CFR 117.3)

Ethyl Acetate 141-78-6 5,000 lbs. Final RQ (2,270 kgs. Final RQ)

United States - Superfund Amendments and Reauthorization Act of 1986 (SARA)

Ethyl Acetate 141-78-6 Acute (Immediate) & fire hazard

Chronic (Delayed)

United States - CERCLA/SARA - Hazardous Substances and Their Reportable Quantities

Ethyl Acetate 141-78-6 5,000 lbs. Final RQ (2,270 kgs. Final RQ)

United States - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Ethyl Acetate 141-78-6 Not Listed

United States - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA Reportable Quantities

Ethyl Acetate 141-78-6 Not Listed

United States – CERCLA/SARA – Section 304 Emergency Release Notification Reportable Quantities

Ethyl Acetate 141-78-6 5,000 lbs. Final RQ (2,270 kgs. Final RQ)

United States - CERCLA/SARA - Section 313 - Emission Reporting

Ethyl Acetate 141-78-6 Not Listed

United States - CERCLA/SARA - Section 313 - PBT Chemical Listing

Ethyl Acetate 141-78-6 Not Listed

United States - RCRA Hazard Class (40 CFR 261, If discarded)

Ethyl Acetate 141-78-6 Listed, Ignitable (D001)

United States - TSCA Section 12(b) Export Notification (40 CFR 707, Subpart D)

Ethyl Acetate 141-78-6 Not Listed

NAPA Hazard Rating:

Hazard Rating	NFPA	HMIS	0 = Minimal	
Health	2	1	1 = Slight	3
Fire	3	3	2 = Moderate	$\frac{2}{\sqrt{2}}$
Reactivity	0	0	3 = Serious	
Personal Protection			4 = Extreme	

## United States (US) – California

United States - Proposition 65 - Carcinogens List

Ethyl Acetate 141-78-6 Not Listed

United States - Proposition 65 - Developmental Toxicity

Ethyl Acetate 141-78-6 Not Listed

United States - Proposition 65 - Maximum Allowable Dose Levels (MADL)

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Ethyl Acetate 141-78-6 Not Listed

United States - Proposition 65 - No Significant Risk Levels (NSRL)

Ethyl Acetate 141-78-6 Not Listed

United States - Proposition 65 - Reproductive Toxicity - Female

Ethyl Acetate 141-78-6 Not Listed

United States - Proposition 65 - Reproductive Toxicity - Male

Ethyl Acetate 141-78-6 Not Listed

United States - South Coast Air Quality Management District (SCAQMD)

Ethyl Acetate 141-78-6 Meets Rule 443.1 & similar regulations.

United States (US) – Connecticut

Worker and Community Right-to-Know Act, Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Florida

Right-to-Know Act, Florida Statutes § 442.103, Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Illinois

Illinis Toxic Substances Disclosure to Employees Act (820 ILCS 255), Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Louisiana

Emergency Planning and Community Right-to-Know Act (EPCRA), Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Massachusetts

Right-to-Know Law (M.G.L. c. 111F), Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Minnesota

Right-to-Know List (Minn. R. 5206.0400), Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – New Jersey

Worker and Community Right-to-Know Hazardous Substance List (RTKHSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – New York

Community Right-to-Know Law, DEC regulations, 6 NYCRR Part 597, Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Rhode Island

Right-to-Know Hazardous Substance List, Master Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

United States (US) – Pennsylvania

Pennsylvania Right-to-Know Act, Substance List (MSL)

Ethyl Acetate 141-78-6 Listed

Inventory Status

Australia AICS:

On or in compliance with the inventory.

Canada DSL Inventory List:

On or in compliance with the inventory.

European Union EINECS, ELINCS or NLP: EINECS: On or in compliance with the inventory. ELINCS and NLP: Not listed.

Japan (ENCS) List:

Japan ISHL Listing:

Japan Pharmacopoeia Listing:

China Inventory Existing Chemical substances:

Korea Existing Chemicals Inventory (KECI):

On or in compliance with the inventory.

On or in compliance with the inventory.

On or in compliance with the inventory.

Canada NDSL Inventory: Not listed.

Philippines PICCS:
United States TSCA Inventory:
New Zealand Inventory of Chemicals:
On or in compliance with the inventory.
On or in compliance with the inventory.

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# **European Union (EU)**

European Union - Chemicals Hazards Information & Packaging (CHIP) Regulation 1993 Reportable Quantities

141-78-6 Ethyl Acetate Listed

# **CHIP Regulations:**

Designation: Uro-Bond® III Silicone Adhesive

Symbol: F. Xn

Indication of Danger: Flammable, Harmful Risk Phrases: R11, R20, R22, R36

S2, S3, S7, S8, S9, S23, S24, S26 Safety Phrases:

C.H.I.P. Regulation 1993 Requirements: Physico-chemical and health hazard determination of all substances and preparations manufactured, transported, stored, modified or consumed within the EEC. Components present in this product at a level, which could require reporting under the statute, are: Ethyl Acetate.

EPA Hazard Categories: Fire Hazard, Immediate Health Hazard, Delayed Health Hazard.

Symbol(s):

F: Highly Flammable

Xn: Harmful

Risk Phrases:

R11: Highly flammable. R20: Harmful by inhalation. R22: Harmful if swallowed.

R36: Irritating to eyes.

Safety Phrases: S2: Keep out of the reach of children.

S3: Keep in cool place.

\$7: Keep container tightly closed.

S8: Keep container dry.

**S9**: Keep container in a well-ventilated place.

S23: Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

S24: Avoid contact with skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Globally Harmonized System of Classification and Labeling (GHS): The listed component(s) of this material have been checked for country-specific published classifications according to the Globally Harmonized System of Classification and Labeling (GHS). The results of the queries are displayed below. Please see the individual country listings, as additional interpretations or reference information may be available.

European Union (EU) GHS Classifications: Classifications below according to Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP).

ETHYL ACETATE (141-78-6)

Flammable liquids – Category 2 H225: Highly flammable liquid and vapor.

Serious eye damage/eye Irritation – Category 2 H319: Causes serious eye irritation. Single exposure – Category 3 H336: May cause drowsiness or dizziness.

European Union GHS Labeling Information: Labeling information below is according to Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP).

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Exclamation Point.





Signal Word: Danger

Hazards(s):

H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation.

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H336: May cause drowsiness or dizziness.

#### Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

**P241**: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

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

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

#### Response:

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.

P337+P313: If eye irritation persists: Get medical advice/attention.

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

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

#### Supplemental:

EUH066: Repeated exposure may cause skin dryness or cracking.

Japan GHS Classifications: Classifications below published under Japan's Chemicals Classification Program according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)).

ETHYL ACETATE (141-78-6)

Flammable liquids – Category 2 **H225**: Highly flammable liquid and vapor.

Serious eye damage/eye irritation – Category 2B **H320**: Causes eye irritation.

Specific target organ toxicity – Single exposure – Category 3 H335: May cause respiratory irritation.

Specific target organ toxicity – Single exposure – Category 3 H336: May cause drowsiness or dizziness.

Japan GHS Labeling Information: Labeling information below is according to classifications published by Japan's Chemicals Classification Program according to the Globally Harmonized System of Classification and Labeling of Chemicals. (GHS).

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Exclamation Point.





#### Signal Word: Danger

#### Hazards(s):

H225: Highly flammable liquid and vapor.

H320: Causes eye irritation.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

#### Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

**P241**: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

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

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

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#### Response:

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.

P337+P313: If eye irritation persists: Get medical advice/attention.

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

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Storage:

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.

#### Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

#### Supplemental:

EUH066: Repeated exposure may cause skin dryness or cracking.

Korea GHS Classifications (SV): Classifications below published by Korea's Ministry of Environment (MOE), Ministry of Employment and Labor (MOEL) or Office of National Emergency Management (NEMA, physical hazards only).

ETHYL ACETATE (141-78-6)

MOE: Flammable liquids – Category 2 H225: Highly flammable liquid and vapor.

Skin corrosion/irritation – Category 2 H315: Causes skin irritation.

Specific target organ toxicity – Single exposure – Category 3 H335: May cause respiratory irritation.

MOEL: Flammable liquids – Category 2 H225: Highly flammable liquid and vapor.

Specific target organ toxicity – Single exposure – Category 1

Specific target organ toxicity – Single exposure – Category 3

H370: Causes damage to respiratory system.

H336: May cause drowsiness or dizziness.

**NEMA:** Flammable liquids – Category 2 **H225**: Highly flammable liquid and vapor.

Korea GHS Labeling Information: Classifications below published by Korea's Ministry of Environment (MOE), Ministry of Employment and Labor (MOEL) or Office of National Emergency Management (NEMA, physical hazards only).

#### Ministry of Environment (MOE):

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Exclamation Point.





#### Signal Word: Danger

#### Hazards(s):

H225: Highly flammable liquid and vapor.

H315: Causes skin irritation.

**H335**: May cause respiratory irritation.

#### Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

**P241**: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

**P271**: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

#### Response

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

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

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

P362+P364: Take off contaminated clothing and wash it before reuse.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P321: Specific treatment (see treatment instructions on this label).

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Storage:

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.

#### Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

#### Ministry of Employment and Labor (MOEL):

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Health, Exclamation Point.







Signal Word: Danger

#### Hazards(s):

H225: Highly flammable liquid and vapor.

H370: Causes damage to organs.

H336: May cause drowsiness or dizziness.

#### Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

P241: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

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

P280: Wear protective gloves/protective clothing/eye protection/face protection.

**P260**: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

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

#### Response:

P308+P313: IF exposed or concerned: Get medical advice/attention.

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

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

P362+P364: Take off contaminated clothing and wash it before reuse.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P321: Specific treatment (see treatment instructions on this label).

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Storage:

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.

#### Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

#### Office of National Emergency Management (NEMA, physical hazards only):

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Health, Exclamation Point.

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Signal Word: Danger

Hazards(s):

H336: May cause drowsiness or dizziness.

Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

**P241**: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Responses

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

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

Storage

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

Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

New Zealand GHS Classifications: Classifications below published under Japan's Chemicals Classification Program according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) ).

ETHYL ACETATE (141-78-6)

Flammable liquids – Category 2
Acute toxicity – Oral – Category 5
Acute toxicity – Inhalation – Category 5
Serious eye damage/eye irritation – Category 2A
Specific target organ toxicity – Repeated exposure
– Inhalation – Category 2

H225: Highly flammable liquid and vapor.

H303: May be harmful if swallowed.

H333: May be harmful if inhaled.

H319: Causes serious eye irritation.

**H373**: May cause damage to blood, brain, liver, thyroid gland, adrenal gland and/or body weight through prolonged or repeated exposure if inhaled.

**New Zealand GHS Labeling Information:** Labeling information below is according to classifications published by Japan's Chemicals Classification Program according to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Health, Exclamation Point.







Signal Word: Danger

Hazards(s):

H225: Highly flammable liquid and vapor.

H303: May be harmful if swallowed.

H333: May be harmful if inhaled.

H319: Causes serious eye irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**P240**: Ground/Bond container and receiving equipment.

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P241: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

#### Response:

P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remover contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

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

P314: Get medical advice/attention if you feel unwell.

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Storage:

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

#### Disposal

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

**Taiwan GHS Classifications:** Information below presented according to Taiwan's Bureau of Standards, Metrology and Inspection (BSMI) of the Ministry of Economic Affairs. This agency has published a series of standards (CNS 150301-27 Chemical Classification and Labeling) which provide guidance on classification and labeling of chemicals according to GHS.

ETHYL ACETATE (141-78-6)

Flammable liquids – Category 2 **H225**: Highly flammable liquid and vapor.

Serious eye damage/eye irritation – Category 2A H319: Causes serious eye irritation.

**Taiwan GHS Labeling Information:** Labeling information below according to classifications published by Taiwan's Bureau of Standards, Metrology and Inspection (BSMI) of the Ministry of Economic Affairs. This agency has published a series of standards (CNS 150301-27 Chemical Classification and Labeling) which provide guidance on classification and labeling of chemicals according to GHS.

ETHYL ACETATE (141-78-6)

Symbol(s): Flame, Exclamation Point.





Signal Word: Danger

#### Hazards(s):

H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation.

#### Prevention:

P233: Keep container tightly closed.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240: Ground/Bond container and receiving equipment.

**P241**: Use explosion-proof-electrical/ventilating/lighting/.../equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

**P280**: Wear protective gloves/protective clothing/eye protection/face protection.

P264: Wash hands thoroughly after handling.

#### Response:

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention.

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

P370+P378: In case of fire: Use alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires for extinction.

#### Storage

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

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Disposal:

P501: Dispose of contents/container in accordance with applicable local, county, state and federal regulations.

## **SECTION 16 - OTHER INFORMATION**

# 16.1 Report Information

Last Revision Date: 03 May, 2016
Preparation Date: 03 May, 2016
Last Review Date: 01 Aug, 2019

Prepared By: Raymond Halsey-Franke, President Operations/MR

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Key to Abbreviations:

ACGIH	=	American Conference of Governmental Industrial Hygiene	LC <sub>50</sub>	=	Lethal concentration 50
CAS	=	Chemical Abstract Service	MAK	=	Maximale Arbeitsplatz Konzentration is the maximum permissible concentration.
CERCLA	=	Comprehensive Environmental Response, Compensation, and Liability Act	ml/kg	=	Milliliter per kilogram
CFR	=	Code of Federal Regulations	mg/kg	=	Milligram per kilogram
CTDG	=	Canadian Transportation of Dangerous Goods	MSDS	=	Material Safety Data Sheet (replaced by SDS)
DOT	=	Department of Transportation	MSHA	=	Mine Safety and Health Administration
EINECS	=	European Inventory of Existing Commercial Chemical Substances	NAB	=	Threshold Values (Indonesia)
EPA	=	Environmental Protection Agency	NIOSH	=	National Institute of Occupational Safety and Health
EU	=	European Union	NTP	=	National Toxicology Program
GHS	=	Globally Harmonized System of Classification and Labeling of Chemicals	OEL	=	Occupational Exposure Limit(s)
HCS		Hazard Communication Standard	OSHA	=	Occupational Safety and Health Administration
HMIS	=	Hazardous Materials Identification System	PEL	=	Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA).
IARC	=	International Agency for Research on Cancer	RCRA	=	Resource Conservation and Recovery Act
IATA	=	International Air Transport Authority	SDS	=	Safety Data Sheet
ICAO	=	International Civil Aviation Organization	STEL	=	Short Term Exposure Limits are based on 15-minute exposures.
IDL	=	Ingredients Disclosure List	TSCA	=	Toxic Substances Control Act
IMDG	=	International Maritime Dangerous Goods code	TWA	=	Time-Weighted Averages are based on 8h/day, 40h/week exposures.
IMO	=	International Maritime Organization	TWAEV	=	Time-Weighted Average Exposure Value
ISO	=	International Standards Organization	WHMIS	=	Workplace Hazardous Materials Information System
$LD_{50}$	=	Lethal dose 50	UN	=	United Nations

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