

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 07/25/2019 Revision date: 07/25/2019 Version: 1.0

<b>SECTION 1: Identifica</b>	tion	
1.1. Identification		
Product form		: Mixture
Product name		: Additions Mix 2
Product code		: AL0-180006
1.2. Recommended us	e and restricti	ons on use
No additional information ava	ilable	
1.3. Supplier		
Phenova		
6390 Joyce Dr. Suite 100		
Golden, CO 80403 - United S	States	
T 1-866-942-2978 - F 1-866-2	283-0269	
1.4. Emergency teleph	one number	
No additional information ava		
SECTION 2: Hazard(s)	identificati	on
2.1. Classification of t	he substance o	or mixture
GHS-US classification		
Flammable liquids Category 2	H225	Highly flammable liquid and vapour
Acute toxicity (oral) Category 3	H301	Toxic if swallowed
Acute toxicity (dermal) Category 3	H311	Toxic in contact with skin
Skin sensitization, Category	H317	May cause an allergic skin reaction
Carcinogenicity Category 2	H351	Suspected of causing cancer
Specific target organ toxicity (single exposure) Category 1	H370	Causes damage to organs
Full text of H statements : see	e section 16	

2.2. GHS Label elements, including precautionary statements

### **GHS-US** labeling

Hazard pictograms (GHS-US)		
Signal word (GHS-US)	: Danger	
Hazard statements (GHS-US)	<ul> <li>H225 - Highly flammable liquid and vapour</li> <li>H301+H311 - Toxic if swallowed or in contact with skin</li> <li>H317 - May cause an allergic skin reaction</li> <li>H351 - Suspected of causing cancer</li> <li>H370 - Causes damage to organs</li> </ul>	
Precautionary statements (GHS-US)	<ul> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition source smoking.</li> <li>P233 - Keep container tightly closed.</li> <li>P260 - Do not breathe dust/fume/gas/mist/vapors/spray.</li> <li>P270 - Do not eat, drink or smoke when using this product.</li> <li>P272 - Contaminated work clothing must not be allowed out of the workplace</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P301+P310 - If swallowed: Immediately call a poison center or doctor</li> <li>P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. F skin with water/shower</li> <li>P308+P313 - If exposed or concerned: Get medical advice/attention.</li> <li>P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.</li> <li>P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.</li> </ul>	
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P370+P378 - In case of fire: Use media other than water to extinguish. P403+P235 - Store in a well-ventilated place. Keep cool. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

### No additional information available

2.4. Unknown acute toxicity (GHS US)

### Not applicable

### **SECTION 3: Composition/Information on ingredients**

3.1. Substances

### Not applicable

3.2. Mixtures

Name	Product identifier	Conc.
methanol (Component)	(CAS-No.) 67-56-1	98.6
ethyl acrylate (Component)	(CAS-No.) 140-88-5	0.2

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	<ul> <li>Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.</li> </ul>
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effect	cts (acute and delayed)
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
4.3. Immediate medical attention and sp	ecial treatment, if necessary
No additional information available	
SECTION 5: Fire-fighting measures	
5.1. Suitable (and unsuitable) extinguish	ning media
Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Specific hazards arising from the cl	nemical
No additional information available	
5.3. Special protective equipment and p	recautions for fire-fighters
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 mea	sures
	uipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.
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6.2. Environmental precautions			
Prevent entry to sewers and public waters. N	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.		
6.3. Methods and material for containment and cleaning up			
Methods for cleaning up	: Take up in absorbent material. Collect spillage.		
6.4. Reference to other sections			
See Heading 8. Exposure controls and personal protection.			
SECTION 7: Handling and storage	e		
7.1. Precautions for safe handling			
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 vapor.		
Hygiene measures	: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.		
7.2. Conditions for safe storage, incl	7.2. Conditions for safe storage, including any incompatibilities		
Storage conditions	: Keep container closed when not in use. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.		
Incompatible materials	: Direct sunlight.		

## SECTION 8: Exposure controls/personal protection

B.1. Control pa	rameters	
Additions Mix 2		
ACGIH	Local name	Methanol
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
ethyl acrylate (140-	-88-5)	
ACGIH	Local name	Ethyl acrylate
ACGIH	ACGIH TWA (ppm)	5 ppm
ACGIH	ACGIH STEL (ppm)	15 ppm
ACGIH	Remark (ACGIH)	URT, eye, & GI irr; CNS impair
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	100 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	25 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
methanol (67-56-1)		
ACGIH	Local name	Methanol
ACGIH	ACGIH TWA (ppm)	200 ppm (Methanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	250 ppm (Methanol; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA

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### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ei

rols : Either local exhaust or general room ventilation is usually required.

8.3. Individual protection measures/Personal protective equipment

### Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.

### Hand protection:

Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration

### Eye protection:

Chemical goggles or safety glasses. Safety glasses

### Skin and body protection:

Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

### **Respiratory protection:**

Wear appropriate mask

Personal protective equipment symbol(s):



#### Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
	: Colorless	
	: characteristic	
Odor threshold	: No data available	
рН	: No data available	
Melting point	: No data available	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability (solid, gas)	: Non flammable.	
Vapor pressure	: No data available	
Relative vapor density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: No data available	
Log Pow	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosion limits	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: No data available	

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9.2. Other information No additional information available	
SECTION 10: Stability and reactivity	
10.1. Reactivity	
No additional information available	
10.2. Chemical stability	
Not established.	
10.3. Possibility of hazardous reactions	
Not established.	
10.4. Conditions to avoid	
Direct sunlight. Extremely high or low temperatu	res.
10.5. Incompatible materials	
No additional information available	
10.6. Hazardous decomposition products	
No additional information available	
	lion
SECTION 11: Toxicological informat	
11.1. Information on toxicological effects	
Acute toxicity	: Not classified
Additions Mix 2	
ATE US (oral)	101.42 mg/kg body weight
ATE US (dermal)	304.26 mg/kg body weight
ethyl acrylate (140-88-5)	
LD50 oral rat	1120 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	1800 mg/kg body weight (24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	< 9.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	1120 mg/kg body weight
ATE US (dermal)	1800 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
methanol (67-56-1)	
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
O main and it.	Based on available data, the classification criteria are not met
Carcinogenicity	: Suspected of causing cancer.
ethyl acrylate (140-88-5)	
IARC group	2B - Possibly carcinogenic to humans

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Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity – single exposure	: Causes damage to organs.
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.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.

# SECTION 12: Ecological information

12.1. Toxicity		
ethyl acrylate (140-88-5)		
LC50 fish 1	4.6 mg/l (96 h, Salmo gairdneri)	
EC50 Daphnia 1	4.4 mg/l (48 h, Daphnia magna)	
methanol (67-56-1)		
LC50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)	
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)	
LC50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)	
- 12.2. Persistence and degradability		
Additions Mix 2		
Persistence and degradability	Not established.	
ethyl acrylate (140-88-5)		
Persistence and degradability	Readily biodegradable in water.	
Chemical oxygen demand (COD)	1.71 g O₂/g substance	
ThOD	1.92 g O₂/g substance	
BOD (% of ThOD)	0.28	
methanol (67-56-1)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.	
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O₂/g substance	
Chemical oxygen demand (COD)	1.42 g O₂/g substance	
ThOD	1.5 g O <sub>2</sub> /g substance	

Additions Mix 2		
Bioaccumulative potential	Not established.	
ethyl acrylate (140-88-5)		
Log Pow	1.18	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
methanol (67-56-1)		
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)	
Log Pow	-0.77 (Experimental value; Other)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
12.4. Mobility in soil		
ethyl acrylate (140-88-5)		
Surface tension	0.025 N/m (20 °C)	

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methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Calculated value

12.5. Other adverse effects

Additions Mix 2		
ethyl acrylate (140-88-5)		
methanol (67-56-1)		

Other information

: Avoid release to the environment.

SECTION 13: Disposal considerations			
13.1. Disposal methods			
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.		
Ecology - waste materials	: Avoid release to the environment.		

## **SECTION 14: Transport information**

### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description UN-No.(DOT) Proper Shipping Name (DOT)

Class (DOT) Packing group (DOT) Subsidiary risk (DOT) Hazard labels (DOT)

DOT Packaging Non Bulk (49 CFR 173.xxx)

DOT Packaging Bulk (49 CFR 173.xxx)

DOT Symbols

- DOT Special Provisions (49 CFR 172.102)
- : UN1992 Flammable liquids, toxic, n.o.s. (methanol; ), 3 (6.1), II : UN1992 : Flammable liquids, toxic, n.o.s. methanol; : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 : II - Medium Danger : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132 : 3 - Flammable liquid 6.1 - Poison : 202 : 243 : G - Identifies PSN requiring a technical name : 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. following: (image) Where: tr is the maximum mean bulk temperature during transport. tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail : 1 L (49 CFR 173.27)

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DOT Quantity Limitations Cargo aircraft only (4	
CFR 175.75) DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" or passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
Emergency Response Guide (ERG) Number	: 131
Other information	: No supplementary information available.
Transportation of Dangerous Goods	
Not applicable	
Transport by sea	
Transport document description (IMDG) UN-No. (IMDG)	: UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (methanol ; ethyl acrylate), 3 (6.1), II : 1992
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, TOXIC, N.O.S.
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: II - substances presenting medium danger
Subsidiary risks (IMDG)	: 6.1 - Toxic substances
Air transport	
Transport document description (IATA)	: UN 1992 Flammable liquid, toxic, n.o.s. (methanol ; ), 3 (6.1), II
UN-No. (IATA)	: 1992
Proper Shipping Name (IATA)	: Flammable liquid, toxic, n.o.s.
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: II - Medium Danger
Subsidiary risks (IATA)	: 6.1 - Toxic substances

## SECTION 15: Regulatory information

15.1. US Federal regulations

ethyl acrylate (140-88-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	1000 lb	
methanol (67-56-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ 5000 lb		

15.2. International regulations

## CANADA

ethyl acrylate (140-88-5)	
Listed on the Canadian DSL (Domestic Substances List)	
methanol (67-56-1)	
methanol (67-56-1) Listed on the Canadian DSL (Domestic Substances List)	

**EU-Regulations** No additional information available

### National regulations

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### ethyl acrylate (140-88-5)

Listed on IARC (International Agency for Research on Cancer	)
Listed on EPA Hazardous Air Pollutant (HAPS)	

### methanol (67-56-1)

### Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

## ethyl acrylate (140-88-5)

ethyl acrylate (1	140-88-5)				
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 significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	No	No	No		
methanol (67-56	6-1)				
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 significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		47000 µg/day (inhalation); 23,000 µg/day (oral)

<b>SECTION 16: Other informa</b>	ation
Revision date	: 07/25/2019
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.
Full text of H-phrases:	

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H370	Causes damage to organs

#### Phenova US SDS REV

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