

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : Acid Herbicides Mix  
 CAS-No. : 75-05-8  
 Product code : AL0-130833

#### 1.2. Recommended use and restrictions on use

No additional information available

#### 1.3. Supplier

Phenova  
 6390 Joyce Dr. Suite 100  
 Golden, CO 80403 - United States  
 T 1-866-942-2978 - F 1-866-283-0269  
[info@phenova.com](mailto:info@phenova.com) - [www.phenova.com](http://www.phenova.com)

#### 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924  
 ChemTel Assistance (International) +1 813-248-0585

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable liquids Category 2	H225	Highly flammable liquid and vapour
Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Acute toxicity (inhalation) Category 4	H332	Harmful if inhaled
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Carcinogenicity Category 1B	H350	May cause cancer

Full text of H statements : see 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) :

H225 - Highly flammable liquid and vapour  
 H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
 H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H350 - May cause cancer

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P233 - Keep container tightly closed.  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 - Wash hands, forearms and face thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.

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P271 - Use only outdoors or in a well-ventilated area.  
 P272 - Contaminated work clothing must not be allowed out of the workplace  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell  
 P302+P352 - If on skin: Wash with plenty of water  
 P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P304+P340 - If inhaled: Remove person to fresh air and keep 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 or doctor if you feel unwell  
 P321 - Specific treatment (see supplemental first aid instruction on this label)  
 P322 - Specific treatment (see supplemental first aid instruction on this label)  
 P330 - Rinse mouth.  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 P362+P364 - Take off contaminated clothing and wash it before reuse.  
 P363 - Wash contaminated clothing before reuse.  
 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.
acetonitrile (Component)	(CAS-No.) 75-05-8	97.1
Chloramben (Component)	(CAS-No.) 133-90-4	0.2
2,4-D (Component)	(CAS-No.) 94-75-7	0.1
bentazone (Component)	(CAS-No.) 25057-89-0	0.1
2,3,4,5,6-pentachlorophenol (Component)	(CAS-No.) 87-86-5	0.1
MCPA (Component)	(CAS-No.) 94-74-6	0.1
MCPP (Component)	(CAS-No.) 93-65-2	0.1

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 you feel unwell, seek medical advice (show the label where possible).

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 : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects (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.

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### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

No additional information available

### 5.3. Special protective equipment and precautions 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 measures

### 6.1. Personal precautions, protective equipment 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.

### 6.2. Environmental precautions

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 : 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 personal protection.

## SECTION 7: Handling and storage

### 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.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Acid Herbicides Mix (75-05-8)		
ACGIH	Local name	Acetonitrile
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	LRT irr
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	40 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA
2,4-D (94-75-7)		
ACGIH	Local name	2,4-D

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<b>2,4-D (94-75-7)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	Thyroid eff; kidney tubular dam; A4 (Not classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories)
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	Regulatory reference (US-OSHA)	OSHA
<b>bentazone (25057-89-0)</b>		
Not applicable		
<b>Chloramben (133-90-4)</b>		
Not applicable		
<b>MCPA (94-74-6)</b>		
Not applicable		
<b>MCPP (93-65-2)</b>		
Not applicable		
<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>		
ACGIH	Local name	Pentachlorophenol
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup> (Inhalable fraction and vapor)
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (Inhalable fraction and vapor)
ACGIH	Remark (ACGIH)	URT & eye irr; CNS & card impair; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure); BEI
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
OSHA	Regulatory reference (US-OSHA)	OSHA
<b>acetonitrile (75-05-8)</b>		
ACGIH	Local name	Acetonitrile
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	LRT irr
ACGIH	Regulatory reference	ACGIH 2018
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	40 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA

### 8.2. Appropriate engineering controls

No additional information available

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### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

Wear appropriate mask

#### 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
pH	: 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

### 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 temperatures.

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### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Acid Herbicides Mix (75-05-8)</b>	
ATE US (oral)	514.933 mg/kg body weight
ATE US (dermal)	1132.853 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
<b>2,4-D (94-75-7)</b>	
LD50 oral rat	370 mg/kg body weight (Rat, Oral)
LD50 dermal rabbit	1400 mg/kg body weight (Rabbit, Skin)
ATE US (oral)	370 mg/kg body weight
ATE US (dermal)	1400 mg/kg body weight
<b>bentazone (25057-89-0)</b>	
LD50 oral rat	1100 mg/kg (Rat, Oral)
LD50 dermal rat	2500 mg/kg (Rat, Dermal)
LD50 dermal rabbit	4000 mg/kg (Rabbit, Dermal)
LC50 inhalation rat (mg/l)	5.1 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	1100 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight
ATE US (vapors)	5.1 mg/l/4h
ATE US (dust, mist)	5.1 mg/l/4h
<b>Chloramben (133-90-4)</b>	
LD50 oral rat	3500 ml/kg
LD50 dermal rabbit	3136 mg/kg
ATE US (dermal)	3136 mg/kg body weight
<b>MCPA (94-74-6)</b>	
LD50 oral rat	1160 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 700 mg/kg; Rat; Literature study)
LD50 dermal rat	> 4000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 6.4 mg/l/4h (Rat; Experimental value)
ATE US (oral)	1160 mg/kg body weight
<b>MCPP (93-65-2)</b>	
LD50 oral rat	650 mg/kg (Rat; Literature study)
ATE US (oral)	650 mg/kg body weight
<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
LC50 inhalation rat (mg/l)	355 mg/m <sup>3</sup> (Rat, Literature, Inhalation)
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h
<b>acetonitrile (75-05-8)</b>	
LD50 dermal rabbit	> 2000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight

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<b>acetonitrile (75-05-8)</b>	
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

<b>MCPA (94-74-6)</b>	
IARC group	2B - Possibly carcinogenic to humans

<b>MCPP (93-65-2)</b>	
IARC group	2B - Possibly carcinogenic to humans

<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified

Specific target organ toxicity – repeated exposure	: Not classified
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Aspiration hazard	: Not classified
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Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
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Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
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## SECTION 12: Ecological information

### 12.1. Toxicity

<b>2,4-D (94-75-7)</b>	
LC50 fish 1	82 mg/l (96 h, <i>Salmo gairdneri</i> , Literature study)
EC50 Daphnia 1	90 mg/l (48 h, <i>Daphnia magna</i> , Literature study)
ErC50 (algae)	33.2 mg/l (Other, 120 h, <i>Selenastrum capricornutum</i> , Experimental value, GLP)

<b>Chloramben (133-90-4)</b>	
LC50 fish 1	> 10 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) 96 h

<b>MCPA (94-74-6)</b>	
LC50 fish 1	50 mg/l (LC50; 96 h; <i>Salmo gairdneri</i> ; Flow-through system)
EC50 Daphnia 1	3.2 mg/l (EC50; 48 h; <i>Daphnia magna</i> )
Threshold limit algae 1	0.152 mg/l (EC50; 336 h; <i>Lemna gibba</i> )

<b>MCPP (93-65-2)</b>	
EC50 Daphnia 1	400 - 450 mg/l (EC50; 48 h; <i>Daphnia magna</i> )
LC50 fish 2	240 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; <i>Salmo gairdneri</i> ; Static system)
Threshold limit algae 2	220 mg/l (ErC50; 96 h; <i>Chlorella</i> sp.)

<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
LC50 fish 1	0.052 mg/l (96 h, <i>Salmo gairdneri</i> )
EC50 Daphnia 1	0.01 - 0.36 mg/l (48 h, <i>Daphnia magna</i> )

<b>acetonitrile (75-05-8)</b>	
LC50 fish 1	1640 mg/l (Other, 96 h, <i>Pimephales promelas</i> , Flow-through system, Fresh water, Experimental value, Soft water)
EC50 Daphnia 1	> 1000 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Semi-static system, Fresh water, Experimental value, GLP)

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<b>acetonitrile (75-05-8)</b>	
ErC50 (algae)	9696 mg/l (ISO 10253, 72 h, Phaeodactylum, Static system, Salt water, Experimental value, GLP)

### 12.2. Persistence and degradability

<b>Acid Herbicides Mix (75-05-8)</b>	
Persistence and degradability	Not established.

<b>2,4-D (94-75-7)</b>	
Persistence and degradability	Biodegradable in the soil. Inhibition of nitrification. Readily biodegradable in water.

<b>bentazone (25057-89-0)</b>	
Persistence and degradability	Not readily biodegradable in water.

<b>MCPA (94-74-6)</b>	
Persistence and degradability	Not readily biodegradable in water. No significant hydrolysis. Not readily biodegradable in the soil. Adsorbs into the soil.

<b>MCPP (93-65-2)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil. Photodegradation in the air.

<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.

<b>acetonitrile (75-05-8)</b>	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.17 g O <sub>2</sub> /g substance
ThOD	3.12 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Acid Herbicides Mix (75-05-8)</b>	
Bioaccumulative potential	Not established.

<b>2,4-D (94-75-7)</b>	
BCF fish 1	< 10 (Other, 3 day(s), Leuciscus idus, Fresh water, Experimental value)
Log Pow	2.58 - 2.83 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>bentazone (25057-89-0)</b>	
Log Pow	2.34
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>MCPA (94-74-6)</b>	
BCF fish 1	1 (BCF; 672 h; Pisces)
Log Pow	2.86 (Experimental value; Other; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>MCPP (93-65-2)</b>	
BCF fish 1	1.2 - 5.5 (BCF; 672 h; Lepomis macrochirus)
Log Pow	1.17 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
BCF fish 1	770 (768 h, Pimephales promelas)
BCF fish 2	39 - 224 (Cyprinus carpio, Test duration: 8 weeks)
BCF other aquatic organisms 1	1250 (Algae)
Log Pow	4.07 - 5.19
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

<b>acetonitrile (75-05-8)</b>	
BCF other aquatic organisms 1	3.162 (BCFWIN, Weight of evidence)
Log Pow	-0.54 (Weight of evidence approach, Equivalent or similar to OECD 107, 25 °C)



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acetonitrile (75-05-8)	
Bioaccumulative potential	Not bioaccumulative.

### 12.4. Mobility in soil

2,4-D (94-75-7)	
Ecology - soil	No (test)data on mobility of the substance available.

bentazone (25057-89-0)	
Ecology - soil	Not toxic to bees.

MCPA (94-74-6)	
Ecology - soil	Toxic to flora.

2,3,4,5,6-pentachlorophenol (87-86-5)	
Ecology - soil	No (test)data on mobility of the substance available.

acetonitrile (75-05-8)	
Surface tension	0.029 N/m (20 °C)
Log Koc	0.65 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

### 12.5. Other adverse effects

Acid Herbicides Mix (75-05-8)	
2,4-D (94-75-7)	
bentazone (25057-89-0)	
Chloramben (133-90-4)	
MCPA (94-74-6)	
MCPA (93-65-2)	
2,3,4,5,6-pentachlorophenol (87-86-5)	
acetonitrile (75-05-8)	

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 : UN1648 Acetonitrile, 3, II  
UN-No.(DOT) : UN1648  
Proper Shipping Name (DOT) : Acetonitrile  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Packing group (DOT) : II - Medium Danger

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Hazard labels (DOT) : 3 - Flammable liquid



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Special Provisions (49 CFR 172.102) : 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.  
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)  
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where:  $t_r$  is the maximum mean bulk temperature during transport,  $t_f$  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 ( $t_f$ ) and the maximum mean bulk temperature during transportation ( $t_r$ ) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where:  $d_{15}$  and  $d_{50}$  are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

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

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

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" on 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 : 127

Other information : No supplementary information available.

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG) : UN 1648 ACETONITRILE, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS (2°C c.c.)

UN-No. (IMDG) : 1648

Proper Shipping Name (IMDG) : ACETONITRILE

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : II - substances presenting medium danger

### Air transport

Transport document description (IATA) : UN 1648 Acetonitrile, 3, II, ENVIRONMENTALLY HAZARDOUS

UN-No. (IATA) : 1648

Proper Shipping Name (IATA) : Acetonitrile

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

# Acid Herbicides Mix

## Safety Data Sheet

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<b>2,4-D (94-75-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Not subject to reporting requirements of the United States SARA Section 313	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb
<b>bentazone (25057-89-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Chloramben (133-90-4)</b>	
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	100 lb
<b>MCPA (94-74-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
<b>MCPP (93-65-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
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	10 lb
<b>acetonitrile (75-05-8)</b>	
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

<b>2,4-D (94-75-7)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>bentazone (25057-89-0)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>Chloramben (133-90-4)</b>	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
<b>MCPA (94-74-6)</b>	
Listed on the Canadian NDSL (Non-Domestic Substances List)	
<b>MCPP (93-65-2)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>2,3,4,5,6-pentachlorophenol (87-86-5)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
<b>acetonitrile (75-05-8)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

#### EU-Regulations

No additional information available

#### National regulations

<b>2,4-D (94-75-7)</b>	
Listed on IARC (International Agency for Research on Cancer) Listed on EPA Hazardous Air Pollutant (HAPS)	

# Acid Herbicides Mix

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### Chloramben (133-90-4)

Listed on EPA Hazardous Air Pollutant (HAPS)

### 2,3,4,5,6-pentachlorophenol (87-86-5)

Listed on IARC (International Agency for Research on Cancer)

Listed as carcinogen on NTP (National Toxicology Program)

Listed on EPA Hazardous Air Pollutant (HAPS)

### acetonitrile (75-05-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

## 15.3. US State regulations

### 2,3,4,5,6-pentachlorophenol (87-86-5)

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	40 µg/day	

## SECTION 16: Other information

Revision date : 08/06/2019

Other information : None.

Full text of H-phrases:

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H350	May cause cancer

Phenova US SDS REV

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