

# SAFETY DATA SHEET

Operator Training Samples for FID Instruments, Part Number 18801-60700

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Operator Training Samples for FID Instruments, Part Number 18801-60700  
**Part no. (chemical kit)** : 18801-60700  
**Part no.** :  Flame Ionization Detector Sample A 18801-60700A  
 Flame Ionization Detector Sample B 18801-60700B  
**Validation date** : 5/9/2018

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Material uses** :  Reagents and Standards for Analytical Chemistry Laboratory Use  
 Flame Ionization Detector Sample A 1 x 0.5 ml  
 Flame Ionization Detector Sample B 1 x 0.5 ml

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**OSHA/HCS status** :  Flame Ionization Detector Sample A This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 Flame Ionization Detector Sample B This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### Flame Ionization Detector

##### Sample A

H225 FLAMMABLE LIQUIDS - Category 2  
 H319 EYE IRRITATION - Category 2A  
 H361 TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

#### Flame Ionization Detector

##### Sample B

H225 FLAMMABLE LIQUIDS - Category 2  
 H319 EYE IRRITATION - Category 2A  
 H361 TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

### 2.2 GHS label elements

## Section 2. Hazards identification

### Hazard pictograms

Flame Ionization Detector Sample A



Flame Ionization Detector Sample B



### Signal word

Flame Ionization Detector Sample A Danger

Flame Ionization Detector Sample B Danger

### Hazard statements

Flame Ionization Detector Sample A H225 - Highly flammable liquid and vapor.

H319 - Causes serious eye irritation.  
H361 - Suspected of damaging the unborn child.  
H336 - May cause drowsiness or dizziness.

Flame Ionization Detector Sample B H225 - Highly flammable liquid and vapor.

H319 - Causes serious eye irritation.  
H361 - Suspected of damaging the unborn child.  
H336 - May cause drowsiness or dizziness.

### Precautionary statements

#### Prevention

Flame Ionization Detector Sample A P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P233 - Keep container tightly closed.

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

P261 - Avoid breathing vapor.

P264 - Wash hands thoroughly after handling.

Flame Ionization Detector Sample B P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

## Section 2. Hazards identification

### Response

: Flame Ionization Detector Sample A

P233 - Keep container tightly closed.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P261 - Avoid breathing vapor.  
 P264 - Wash hands thoroughly after handling.  
 P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 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 attention.

Flame Ionization Detector Sample B

P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 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 attention.

### Storage

: Flame Ionization Detector Sample A

P405 - Store locked up.

Flame Ionization Detector Sample B

P403 - Store in a well-ventilated place.  
 P235 - Keep cool.  
 P405 - Store locked up.

### Disposal

: Flame Ionization Detector Sample A

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

Flame Ionization Detector Sample B

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.  
 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Supplemental label elements

: Flame Ionization Detector Sample A

None known.

Flame Ionization Detector Sample B

None known.

### 2.3 Other hazards

## Section 2. Hazards identification

**Hazards not otherwise classified** : **F**lame Ionization Detector Sample A None known.  
 A  
 Flame Ionization Detector Sample B None known.  
 B

## Section 3. Composition/information on ingredients

**Substance/mixture** : **F**lame Ionization Detector Sample A Mixture  
 Flame Ionization Detector Sample B Mixture

Ingredient name	%	CAS number
<b>F</b> lame Ionization Detector Sample A		
Acetone	≥90	67-64-1
Toluene	≤0.3	108-88-3
<b>F</b> lame Ionization Detector Sample B		
Acetone	≥90	67-64-1
Toluene	≤0.3	108-88-3
p-Xylene	≤0.3	106-42-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

**Eye contact** : **F**lame Ionization Detector Sample A Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.  
 Flame Ionization Detector Sample B Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : **F**lame Ionization Detector Sample A Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.  
 Flame Ionization Detector Sample B Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the

## Section 4. First aid measures

rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Skin contact

: Flame Ionization Detector Sample A

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Flame Ionization Detector Sample B

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

: Flame Ionization Detector Sample A

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Flame Ionization Detector Sample B

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

## Section 4. First aid measures

<b>Eye contact</b>	: Flame Ionization Detector Sample A	Causes serious eye irritation.
	Flame Ionization Detector Sample B	Causes serious eye irritation.
<b>Inhalation</b>	: Flame Ionization Detector Sample A	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	Flame Ionization Detector Sample B	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
<b>Skin contact</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	Flame Ionization Detector Sample B	No known significant effects or critical hazards.
<b>Ingestion</b>	: Flame Ionization Detector Sample A	Can cause central nervous system (CNS) depression.
	Flame Ionization Detector Sample B	Can cause central nervous system (CNS) depression.

### Over-exposure signs/symptoms

<b>Eye contact</b>	: Flame Ionization Detector Sample A	Adverse symptoms may include the following: pain or irritation watering redness
	Flame Ionization Detector Sample B	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: Flame Ionization Detector Sample A	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
	Flame Ionization Detector Sample B	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Flame Ionization Detector Sample A	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Flame Ionization Detector Sample B	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

## Section 4. First aid measures

<b>Ingestion</b>	: Flame Ionization Detector Sample A	Adverse symptoms may include the following:  reduced fetal weight increase in fetal deaths skeletal malformations
	: Flame Ionization Detector Sample B	Adverse symptoms may include the following:  reduced fetal weight increase in fetal deaths skeletal malformations

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Flame Ionization Detector Sample A	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: Flame Ionization Detector Sample B	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: Flame Ionization Detector Sample A	No specific treatment.
	: Flame Ionization Detector Sample B	No specific treatment.
<b>Protection of first-aiders</b>	: Flame Ionization Detector Sample A	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	: Flame Ionization Detector Sample B	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Flame Ionization Detector Sample A	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	: Flame Ionization Detector Sample B	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	: Flame Ionization Detector Sample A	Do not use water jet.
	: Flame Ionization Detector Sample B	Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

## Section 5. Fire-fighting measures





<b>Specific hazards arising from the chemical</b>	: <input checked="" type="checkbox"/> Flame Ionization Detector Sample A	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
	Flame Ionization Detector Sample B	Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
<b>Hazardous thermal decomposition products</b>	: <input checked="" type="checkbox"/> Flame Ionization Detector Sample A	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Flame Ionization Detector Sample B	Decomposition products may include the following materials: carbon dioxide carbon monoxide
<b>5.3 Advice for firefighters</b>		
<b>Special protective actions for fire-fighters</b>	: <input checked="" type="checkbox"/> Flame Ionization Detector Sample A	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Flame Ionization Detector Sample B	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
<b>Special protective equipment for fire-fighters</b>	: <input checked="" type="checkbox"/> Flame Ionization Detector Sample A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Flame Ionization Detector Sample B	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures



## Section 6. Accidental release measures

<b>For non-emergency personnel</b>	:  Flame Ionization Detector Sample A	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Flame Ionization Detector Sample B	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	:  Flame Ionization Detector Sample A	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Flame Ionization Detector Sample B	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>6.2 Environmental precautions</b>	:  Flame Ionization Detector Sample A	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Flame Ionization Detector Sample B	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>6.3 Methods and materials for containment and cleaning up</b>		
<b>Methods for cleaning up</b>	:  Flame Ionization Detector Sample A	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Flame Ionization Detector Sample B	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: Flame Ionization Detector Sample A	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Flame Ionization Detector Sample B	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	: Flame Ionization Detector Sample A	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Flame Ionization Detector Sample B	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

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

Flame Ionization Detector Sample A	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
Flame Ionization Detector Sample B	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

#### Recommendations

Flame Ionization Detector Sample A	Industrial applications, Professional applications.
Flame Ionization Detector Sample B	Industrial applications, Professional applications.

#### Industrial sector specific solutions

Flame Ionization Detector Sample A	Not applicable.
Flame Ionization Detector Sample B	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Flame Ionization Detector Sample A Acetone	<b>ACGIH TLV (United States, 3/2017).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 750 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m <sup>3</sup> 15 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b>

## Section 8. Exposure controls/personal protection

Toluene	<p>TWA: 1000 ppm 8 hours. TWA: 2400 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 100 ppm 8 hours. TWA: 375 mg/m<sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL Z2 (United States, 2/2013).</b> TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 100 ppm 10 hours. TWA: 375 mg/m<sup>3</sup> 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 20 ppm 8 hours.</p>
<p><b>Flame Ionization Detector Sample B</b> Acetone</p>	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 750 ppm 8 hours. TWA: 1800 mg/m<sup>3</sup> 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 250 ppm 10 hours. TWA: 590 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 1000 ppm 8 hours. TWA: 2400 mg/m<sup>3</sup> 8 hours.</p>
Toluene	<p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 100 ppm 8 hours. TWA: 375 mg/m<sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL Z2 (United States, 2/2013).</b> TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 100 ppm 10 hours. TWA: 375 mg/m<sup>3</sup> 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 20 ppm 8 hours.</p>
p-Xylene	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 100 ppm 8 hours. TWA: 434 mg/m<sup>3</sup> 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b></p>

## Section 8. Exposure controls/personal protection

TWA: 100 ppm 8 hours.  
 TWA: 435 mg/m<sup>3</sup> 8 hours.  
 STEL: 150 ppm 15 minutes.  
 STEL: 655 mg/m<sup>3</sup> 15 minutes.  
**NIOSH REL (United States, 10/2016).**  
 TWA: 100 ppm 10 hours.  
 TWA: 435 mg/m<sup>3</sup> 10 hours.  
 STEL: 150 ppm 15 minutes.  
 STEL: 655 mg/m<sup>3</sup> 15 minutes.  
**OSHA PEL (United States, 6/2016).**  
 TWA: 100 ppm 8 hours.  
 TWA: 435 mg/m<sup>3</sup> 8 hours.

### 8.2 Exposure controls

#### Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

##### Hand protection

: 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 necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

##### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Flame Ionization Detector Sample A	Liquid.
	: Flame Ionization Detector Sample B	Liquid.
<b>Color</b>	: Flame Ionization Detector Sample A	Not available.
	: Flame Ionization Detector Sample B	Not available.
<b>Odor</b>	: Flame Ionization Detector Sample A	Not available.
	: Flame Ionization Detector Sample B	Not available.
<b>Odor threshold</b>	: Flame Ionization Detector Sample A	Not available.
	: Flame Ionization Detector Sample B	Not available.
<b>pH</b>	: Flame Ionization Detector Sample A	Not available.
	: Flame Ionization Detector Sample B	Not available.
<b>Melting point</b>	: Flame Ionization Detector Sample A	-95°C (-139°F)
	: Flame Ionization Detector Sample B	-95°C (-139°F)
<b>Boiling point</b>	: Flame Ionization Detector Sample A	56°C (132.8°F)
	: Flame Ionization Detector Sample B	56°C (132.8°F)
<b>Flash point</b>	: Flame Ionization Detector Sample A	Closed cup: -18°C (-0.4°F)
	: Flame Ionization Detector Sample B	Closed cup: -18°C (-0.4°F)
<b>Evaporation rate</b>	: Flame Ionization Detector Sample A	Not available.
	: Flame Ionization Detector Sample B	Not available.
<b>Flammability (solid, gas)</b>	: Flame Ionization Detector Sample A	Not applicable.
	: Flame Ionization Detector Sample B	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: Flame Ionization Detector Sample A	Lower: 2.2%
		Upper: 13%
	: Flame Ionization Detector Sample B	Lower: 2.2%
		Upper: 13%
<b>Vapor pressure</b>	: Flame Ionization Detector Sample A	24 kPa (180 mm Hg) [room temperature]
	: Flame Ionization Detector Sample B	24 kPa (180 mm Hg) [room temperature]
<b>Vapor density</b>	:	

## Section 9. Physical and chemical properties

	Flame Ionization Detector Sample A	2 [Air = 1]
	Flame Ionization Detector Sample B	2 [Air = 1]
<b>Relative density</b>	Flame Ionization Detector Sample A	Not available.
	Flame Ionization Detector Sample B	Not available.
<b>Solubility</b>	Flame Ionization Detector Sample A	Easily soluble in the following materials: cold water and hot water.
	Flame Ionization Detector Sample B	Easily soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	Flame Ionization Detector Sample A	Not available.
	Flame Ionization Detector Sample B	Not available.
<b>Auto-ignition temperature</b>	Flame Ionization Detector Sample A	Not available.
	Flame Ionization Detector Sample B	Not available.
<b>Decomposition temperature</b>	Flame Ionization Detector Sample A	Not available.
	Flame Ionization Detector Sample B	Not available.
<b>Viscosity</b>	Flame Ionization Detector Sample A	Not available.
	Flame Ionization Detector Sample B	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	Flame Ionization Detector Sample A	No specific test data related to reactivity available for this product or its ingredients.
	Flame Ionization Detector Sample B	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	Flame Ionization Detector Sample A	The product is stable.
	Flame Ionization Detector Sample B	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	Flame Ionization Detector Sample A	Under normal conditions of storage and use, hazardous reactions will not occur.
	Flame Ionization Detector Sample B	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	Flame Ionization Detector Sample A	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
	Flame Ionization Detector Sample B	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

## Section 10. Stability and reactivity

- 10.5 Incompatible materials** : **F**lame Ionization Detector Sample A  
 Reactive or incompatible with the following materials:  
 oxidizing materials
- Flame Ionization Detector Sample B  
 Reactive or incompatible with the following materials:  
 oxidizing materials
- 10.6 Hazardous decomposition products** : **F**lame Ionization Detector Sample A  
 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Flame Ionization Detector Sample B  
 Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>F</b> lame Ionization Detector <b>Sample A</b>				
Acetone	LC50 Inhalation Vapor	Rat	76 mg/l	4 hours
	LD50 Oral	Rat	5800 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
<b>Flame Ionization Detector Sample B</b>				
Acetone	LC50 Inhalation Vapor	Rat	76 mg/l	4 hours
	LD50 Oral	Rat	5800 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
p-Xylene	LC50 Inhalation Vapor	Rat	4550 ppm	4 hours
	LD50 Oral	Rat	3910 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Flame Ionization Detector Sample A</b>					
Acetone	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
Toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-



## Section 11. Toxicological information

<b>Flame Ionization Detector Sample B</b>	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Acetone	Eyes - Mild irritant Eyes - Moderate irritant	Rabbit Rabbit	- -	10 microliters 24 hours 20 milligrams
Toluene	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
<b>Flame Ionization Detector Sample A</b>			
Toluene	-	3	-
<b>Flame Ionization Detector Sample B</b>			
Toluene	-	3	-
p-Xylene	-	3	-

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
<b>Flame Ionization Detector Sample A</b> Acetone Toluene	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation and Narcotic effects
<b>Flame Ionization Detector Sample B</b> Acetone Toluene	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Respiratory tract irritation and Narcotic effects
p-Xylene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<b>Flame Ionization Detector Sample A</b> Toluene	Category 2	Inhalation	nervous system
<b>Flame Ionization Detector Sample B</b> Toluene p-Xylene	Category 2 Category 2	Inhalation Not determined	nervous system kidneys, liver and nervous system

### Aspiration hazard

Name	Result
<b>Flame Ionization Detector Sample A</b> Toluene	ASPIRATION HAZARD - Category 1
<b>Flame Ionization Detector Sample B</b> Toluene p-Xylene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

### Information on the likely routes of exposure

- : **Flame Ionization Detector Sample A** Routes of entry anticipated: Oral, Dermal, Inhalation.
- : **Flame Ionization Detector Sample B** Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

#### Eye contact

- : **Flame Ionization Detector Sample A** Causes serious eye irritation.
- : **Flame Ionization Detector Sample B** Causes serious eye irritation.

#### Inhalation

- : **Flame Ionization Detector Sample A** Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- : **Flame Ionization Detector Sample B** Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

#### Skin contact

- : **Flame Ionization Detector Sample A** No known significant effects or critical hazards.
- : **Flame Ionization Detector Sample B** No known significant effects or critical hazards.

## Section 11. Toxicological information

**Ingestion** :  Flame Ionization Detector Sample A Can cause central nervous system (CNS) depression.  
 Flame Ionization Detector Sample B Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** :  Flame Ionization Detector Sample A Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

Flame Ionization Detector Sample B Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

**Inhalation** :  Flame Ionization Detector Sample A Adverse symptoms may include the following:

nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

Flame Ionization Detector Sample B Adverse symptoms may include the following:

nausea or vomiting  
 headache  
 drowsiness/fatigue  
 dizziness/vertigo  
 unconsciousness  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Skin contact** :  Flame Ionization Detector Sample A Adverse symptoms may include the following:

reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

Flame Ionization Detector Sample B Adverse symptoms may include the following:

reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Ingestion** :  Flame Ionization Detector Sample A Adverse symptoms may include the following:

reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

Flame Ionization Detector Sample B Adverse symptoms may include the following:

reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

## Section 11. Toxicological information

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

<b>General</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	: Flame Ionization Detector Sample B	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	: Flame Ionization Detector Sample B	No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	: Flame Ionization Detector Sample B	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Flame Ionization Detector Sample A	Suspected of damaging the unborn child.
	: Flame Ionization Detector Sample B	Suspected of damaging the unborn child.
<b>Developmental effects</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	: Flame Ionization Detector Sample B	No known significant effects or critical hazards.
<b>Fertility effects</b>	: Flame Ionization Detector Sample A	No known significant effects or critical hazards.
	: Flame Ionization Detector Sample B	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

<b>Other information</b>	: Flame Ionization Detector Sample A	Adverse symptoms may include the following: altered blood counts. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
	: Flame Ionization Detector Sample B	Adverse symptoms may include the following: altered blood counts. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Flame Ionization Detector Sample A</b>			
Acetone	Acute EC50 20.565 mg/l Marine water Acute LC50 6000000 µg/l Fresh water Acute LC50 10000 µg/l Fresh water Acute LC50 5600 ppm Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.016 ml/L Fresh water Chronic NOEC 0.1 ml/L Fresh water	Algae - Ulva pertusa Crustaceans - Gammarus pulex Daphnia - Daphnia magna Fish - Poecilia reticulata Algae - Ulva pertusa Crustaceans - Daphniidae Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours 96 hours 96 hours 21 days 21 days
Toluene	Chronic NOEC 0.1 mg/l Fresh water Acute EC50 433 ppm Marine water Acute EC50 12500 µg/l Fresh water  Acute EC50 11600 µg/l Fresh water  Acute EC50 6000 µg/l Fresh water  Acute LC50 5500 µg/l Fresh water Chronic NOEC 0.74 mg/l	Fish - Fundulus heteroclitus Algae - Skeletonema costatum Algae - Pseudokirchneriella subcapitata Crustaceans - Gammarus pseudolimnaeus - Adult Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) Fish - Oncorhynchus kisutch - Fry Daphnia - Ceriodaphnia dubia	4 weeks 96 hours 72 hours  48 hours  48 hours  96 hours 7 days
<b>Flame Ionization Detector Sample B</b>			
Acetone	Acute EC50 20.565 mg/l Marine water Acute LC50 6000000 µg/l Fresh water Acute LC50 10000 µg/l Fresh water Acute LC50 5600 ppm Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.016 ml/L Fresh water Chronic NOEC 0.1 ml/L Fresh water	Algae - Ulva pertusa Crustaceans - Gammarus pulex Daphnia - Daphnia magna Fish - Poecilia reticulata Algae - Ulva pertusa Crustaceans - Daphniidae Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours 96 hours 96 hours 21 days 21 days
Toluene	Chronic NOEC 0.1 mg/l Fresh water Acute EC50 433 ppm Marine water Acute EC50 12500 µg/l Fresh water  Acute EC50 11600 µg/l Fresh water  Acute EC50 6000 µg/l Fresh water  Acute LC50 5500 µg/l Fresh water Chronic NOEC 0.74 mg/l	Fish - Fundulus heteroclitus Algae - Skeletonema costatum Algae - Pseudokirchneriella subcapitata Crustaceans - Gammarus pseudolimnaeus - Adult Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) Fish - Oncorhynchus kisutch - Fry Daphnia - Ceriodaphnia dubia	4 weeks 96 hours 72 hours  48 hours  48 hours  96 hours 7 days
p-Xylene	Acute EC50 3200 µg/l Fresh water  Acute EC50 4730 µg/l Fresh water  Acute LC50 2 ul/L Marine water	Algae - Pseudokirchneriella subcapitata Daphnia - Daphnia magna - Neonate Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	72 hours  48 hours  96 hours

### 12.2 Persistence and degradability

## Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Flame Ionization Detector Sample A</b> Acetone	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	95 % - Readily - 28 days	-	-
<b>Flame Ionization Detector Sample B</b> Acetone	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	95 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Flame Ionization Detector Sample A</b> Acetone Toluene	- -	- -	Readily Readily
<b>Flame Ionization Detector Sample B</b> Acetone Toluene	- -	- -	Readily Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Flame Ionization Detector Sample A</b> Acetone Toluene	-0.23 2.73	3 90	low low
<b>Flame Ionization Detector Sample B</b> Acetone Toluene p-Xylene	-0.23 2.73 3.15	3 90 8.1 to 25.9	low low low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

#### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
<b>Flame Ionization Detector Sample A</b> Acetone (I); 2-Propanone (I)	67-64-1	Listed	U002
<b>Flame Ionization Detector Sample B</b> Acetone (I); 2-Propanone (I)	67-64-1	Listed	U002

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

### Additional information

**Remarks:** De minimis quantities

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**U.S. Federal regulations** : TSCA 4(a) final test rules: nonane  
 TSCA 8(a) PAIR: nonane; p-Xylene; Heptane  
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 Clean Water Act (CWA) 307: Toluene  
 Clean Water Act (CWA) 311: m-Cresol; p-Xylene; m-Xylene; o-xylene; Toluene

Clean Air Act Section 112 : Listed  
 (b) Hazardous Air  
 Pollutants (HAPs)

Clean Air Act Section 602 : Not listed  
 Class I Substances

Clean Air Act Section 602 : Not listed  
 Class II Substances

DEA List I Chemicals : Not listed  
 (Precursor Chemicals)

DEA List II Chemicals : Listed  
 (Essential Chemicals)

#### SARA 302/304

##### Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

#### SARA 311/312

**Classification** : **F**lame Ionization Detector Sample A  
 FLAMMABLE LIQUIDS - Category 2  
 EYE IRRITATION - Category 2A  
 TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
 Flame Ionization Detector Sample B  
 FLAMMABLE LIQUIDS - Category 2  
 EYE IRRITATION - Category 2A  
 TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

##### Composition/information on ingredients

Name	%	Classification
<b>F</b> lame Ionization Detector Sample A		
Acetone	≥90	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Toluene	≤0.3	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous)




## Section 15. Regulatory information

<b>Flame Ionization Detector Sample B</b> Acetone	≥90	system) (inhalation) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
Toluene	≤0.3	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system) (inhalation) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
p-Xylene	≤0.3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys, liver, nervous system) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant

### State regulations

- Massachusetts** : The following components are listed: ACETONE
- New York** : The following components are listed: Acetone; 2-Propanone
- New Jersey** : The following components are listed: ACETONE; 2-PROPANONE
- Pennsylvania** : The following components are listed: 2-PROPANONE

### California Prop. 65

 **WARNING:** This product can expose you to Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
<b>Flame Ionization Detector Sample A</b> Toluene	-	Yes.
<b>Flame Ionization Detector Sample B</b> Toluene	-	Yes.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

## Section 15. Regulatory information

Not listed.

### [Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

### [Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [Inventory list](#)

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

## Section 16. Other information

### [History](#)

<b>Date of issue</b>	: 05/09/2018
<b>Date of previous issue</b>	: 04/28/2016
<b>Version</b>	: 6

### [Procedure used to derive the classification](#)

Classification	Justification
<input checked="" type="checkbox"/> <b>Flame Ionization Detector Sample A</b> FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method
<b>Flame Ionization Detector Sample B</b> FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data Calculation method Calculation method Calculation method

Indicates information that has changed from previously issued version.

## Section 16. Other information

### [Notice to reader](#)

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.