Conforms to US OSHA Hazard Communication 29CFR1910.1200

SAFETY DATA SHEET

Agilent Technologies

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 : 2/12/2024

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

Identified 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 - 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 - 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.
H336 - May cause drowsiness or dizziness.
H361 - Suspected of damaging fertility or the unborn child.

Flame Ionization Detector Sample B:

H225 - Highly flammable liquid and vapor.

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

Precautionary statements

Prevention :

Flame Ionization Detector Sample A:

P201 - Obtain special instructions before use.

P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing vapor.

Flame Ionization Detector Sample B:

P201 - Obtain special instructions before use.

P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing vapor.

Response :

Flame Ionization Detector Sample A:

P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Section 2. Hazards identification

			P337 + P313 - If eye irritation persists: Get medical advice or attention.
		Flame Ionization Detector Sample B	P308 + P313 - IF exposed or concerned: Get medical advice or attention. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	:	Flame Ionization Detector Sample A	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
		Flame Ionization Detector Sample B	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
Disposal	:	Flame Ionization Detector Sample A	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		Flame Ionization Detector Sample B	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

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

Section 3. Composition/information on ingredients

Substance/mixture	:	Flame Ionization Detector Sample A	Mixture
		Flame Ionization Detector Sample B	Mixture

Ingredient name	%	CAS number
Flame Ionization Detector Sample A		
Acetone	≥90	67-64-1
Toluene	≤0.3	108-88-3
Flame 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 and hence require reporting in this section.

Section 3. Composition/information on ingredients

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	:	Flame 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	:	Flame 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 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.

Section 4. First aid measures

Ingestion	:	Flame Ionization Detector Sample A	Wash out mouth with water. Remove dentures if any. 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. 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

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.
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.

Over-exposure signs/symptoms

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

Section 4. First aid measures

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

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

Notes to physician :

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.

Specific treatments :

Flame Ionization Detector Sample A

No specific treatment.

Flame Ionization Detector Sample B

No specific treatment.

Section 4. First aid measures

Protection of first-aiders	:	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

Suitable extinguishing media	:	Flame Ionization Detector Sample A	Use dry chemical, CO_2, water spray (fog) or foam.
		Flame Ionization Detector Sample B	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	:	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

Specific hazards arising from the chemical	:	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.
Hazardous thermal decomposition products	:	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

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	:	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.
Special protective equipment for fire-fighters	:	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

For non-emergency personnel	:	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.
For emergency responders	:	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".

Section 6. Accidental release measures

6.2 Environmental precautions :

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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up :

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

Protective measures :

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

Section 7. Handling and storage

		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.
Advice on general occupational hygiene	: 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.
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)

Section 7. Handling and storage

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 available.
		Flame Ionization Detector Sample B	Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Flame Ionization Detector Sample A	
Acetone	**ACGIH TLV (United States, 1/2023).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours. **CAL OSHA PEL (United States, 5/2018).** STEL: 1780 mg/m³ 15 minutes. STEL: 750 ppm 15 minutes. C: 3000 ppm TWA: 1200 mg/m³ 8 hours. TWA: 500 ppm 8 hours.
Toluene	**OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 375 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2023).** **Ototoxicant.** TWA: 20 ppm 8 hours. **CAL OSHA PEL (United States, 5/2018).** **Absorbed through skin.** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. C: 500 ppm TWA: 37 mg/m³ 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 10 ppm 8 hours.
Flame Ionization Detector Sample B	
Acetone	**ACGIH TLV (United States, 1/2023).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours. **CAL OSHA PEL (United States, 5/2018).** STEL: 1780 mg/m³ 15 minutes. STEL: 750 ppm 15 minutes. C: 3000 ppm TWA: 1200 mg/m³ 8 hours. TWA: 500 ppm 8 hours.
Toluene	**OSHA PEL 1989 (United States, 3/1989).** TWA: 100 ppm 8 hours. TWA: 375 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 375 mg/m³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m³ 15 minutes. **ACGIH TLV (United States, 1/2023).** **Ototoxicant.** TWA: 20 ppm 8 hours. **CAL OSHA PEL (United States, 5/2018).** **Absorbed through skin.** STEL: 560 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. C: 500 ppm TWA: 37 mg/m³ 8 hours. TWA: 10 ppm 8 hours.
p-Xylene	**OSHA PEL 1989 (United States, 3/1989).** **[Xylenes (o-, m-, p-isomers)]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2020).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 150 ppm 15 minutes.

Section 8. Exposure controls/personal protection

	STEL: 655 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018). [Xylenes]** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. **ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene] Ototoxicant.** TWA: 20 ppm 8 hours. **CAL OSHA PEL (United States, 5/2018). [xylene]** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. C: 300 ppm TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.

Biological exposure indices

Ingredient name	Exposure indices
Flame Ionization Detector Sample A	
Acetone	**ACGIH BEI (United States, 1/2023)** BEI: 25 mg/l, acetone [in urine]. Sampling time: end of shift.
Toluene	**ACGIH BEI (United States, 1/2023)** BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.
Flame Ionization Detector Sample B	
Acetone	**ACGIH BEI (United States, 1/2023)** BEI: 25 mg/l, acetone [in urine]. Sampling time: end of shift.
Toluene	**ACGIH BEI (United States, 1/2023)** BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.
p-Xylene	**ACGIH BEI (United States, 1/2023) [xylenes (technical or commercial grade)]** BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift.

8.2 Exposure controls

Section 8. Exposure controls/personal protection

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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Flame Ionization Detector Sample A — Liquid.
Flame Ionization Detector Sample B — Liquid.

Color : Flame Ionization Detector Sample A — Not available.
Flame Ionization Detector Sample B — Not available.

Section 9. Physical and chemical properties and safety characteristics

Odor :
- Flame Ionization Detector Sample A: Not available.
- Flame Ionization Detector Sample B: Not available.

Odor threshold :
- Flame Ionization Detector Sample A: Not available.
- Flame Ionization Detector Sample B: Not available.

pH :
- Flame Ionization Detector Sample A: Not available.
- Flame Ionization Detector Sample B: Not available.

Melting point/freezing point :
- Flame Ionization Detector Sample A: -95°C (-139°F)
- Flame Ionization Detector Sample B: -95°C (-139°F)

Boiling point, initial boiling point, and boiling range :
- Flame Ionization Detector Sample A: 56°C (132.8°F)
- Flame Ionization Detector Sample B: 56°C (132.8°F)

Flash point :
- Flame Ionization Detector Sample A: Closed cup: -18°C (-0.4°F)
- Flame Ionization Detector Sample B: Closed cup: -18°C (-0.4°F)

Evaporation rate :
- Flame Ionization Detector Sample A: Not available.
- Flame Ionization Detector Sample B: Not available.

Flammability :
- Flame Ionization Detector Sample A: Not applicable.
- Flame Ionization Detector Sample B: Not applicable.

Lower and upper explosion limit/flammability limit :
- Flame Ionization Detector Sample A: Lower: 2.2% Upper: 13%
- Flame Ionization Detector Sample B: Lower: 2.2% Upper: 13%

Vapor pressure :
- Flame Ionization Detector Sample A: 24 kPa (180 mm Hg)
- Flame Ionization Detector Sample B: 24 kPa (180 mm Hg)

Relative vapor density :
- Flame Ionization Detector Sample A: 2 [Air = 1]
- Flame Ionization Detector Sample B: 2 [Air = 1]

Relative density :
- Flame Ionization Detector Sample A: Not available.
- Flame Ionization Detector Sample B: Not available.

Solubility(ies) :

Media	Result
Flame Ionization Detector Sample A	
water	Soluble
Flame Ionization Detector Sample B	
water	Soluble

Section 9. Physical and chemical properties and safety characteristics

Partition coefficient: n-octanol/water : Flame Ionization Detector Sample A — Not applicable.
Flame Ionization Detector Sample B — Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Flame Ionization Detector Sample A			
Acetone	465	869	-
Flame Ionization Detector Sample B			
Acetone	465	869	-

Decomposition temperature : Flame Ionization Detector Sample A — Not available.
Flame Ionization Detector Sample B — Not available.

Viscosity : Flame Ionization Detector Sample A — Not available.
Flame Ionization Detector Sample B — Not available.

Particle characteristics

Median particle size : Flame Ionization Detector Sample A — Not applicable.
Flame Ionization Detector Sample B — Not applicable.

Section 10. Stability and reactivity

10.1 Reactivity : 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.

10.2 Chemical stability : Flame Ionization Detector Sample A — The product is stable.
Flame Ionization Detector Sample B — The product is stable.

10.3 Possibility of hazardous reactions : 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.

10.4 Conditions to avoid : 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 :

Flame 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 :

Flame 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
Flame Ionization Detector Sample A				
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rat	12000 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
Flame Ionization Detector Sample B				
Acetone	LD50 Oral	Rat	5800 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rat	12000 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
p-Xylene	LC50 Inhalation Gas.	Rat	4550 ppm	4 hours
	LD50 Oral	Rat	3910 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Flame Ionization Detector Sample A					
Acetone	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Flame Ionization Detector Sample B					
Acetone	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-

Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Toluene	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

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

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Flame Ionization Detector Sample A			
Acetone	Category 3	-	Narcotic effects
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Flame Ionization Detector Sample B			
Acetone	Category 3	-	Narcotic effects
Toluene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
p-Xylene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Flame Ionization Detector Sample A			
Toluene	Category 2	inhalation	nervous system
Flame Ionization Detector Sample B			
Toluene	Category 2	inhalation	nervous system
p-Xylene	Category 2	-	hearing organs, nervous system

Aspiration hazard

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

Information on the likely routes of exposure :
- Flame Ionization Detector Sample A: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- Flame Ionization Detector Sample B: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

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.

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

Section 11. Toxicological information

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

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

General :

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

Carcinogenicity	:	Flame Ionization Detector Sample A	No known significant effects or critical hazards.
		Flame Ionization Detector Sample B	No known significant effects or critical hazards.
Mutagenicity	:	Flame Ionization Detector Sample A	No known significant effects or critical hazards.
		Flame Ionization Detector Sample B	No known significant effects or critical hazards.
Reproductive toxicity	:	Flame Ionization Detector Sample A	Suspected of damaging fertility or the unborn child.
		Flame Ionization Detector Sample B	Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Flame Ionization Detector Sample A					
Acetone	5800	20000	N/A	76	N/A
Toluene	636	N/A	N/A	49	N/A
Flame Ionization Detector Sample B					
Acetone	5800	20000	N/A	76	N/A
Toluene	636	N/A	N/A	49	N/A
p-Xylene	3910	1100	4550	19.747	N/A

Other information	:	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
Flame Ionization Detector Sample A			
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - *Selenastrum sp.*	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - *Acartia tonsa* - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - *Daphnia cucullata*	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - *Poecilia reticulata*	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - *Daphniidae*	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
Toluene	Acute EC50 >433 ppm Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours

Section 12. Ecological information

	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 0.74 mg/l	Daphnia - *Ceriodaphnia dubia*	7 days
Flame Ionization Detector Sample B			
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - *Selenastrum sp.*	96 hours
	Acute LC50 4.42589 ml/L Marine water	Crustaceans - *Acartia tonsa* - Copepodid	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - *Daphnia cucullata*	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - *Poecilia reticulata*	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - *Daphniidae*	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
Toluene	Acute EC50 >433 ppm Marine water	Algae - *Skeletonema costatum*	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - *Oncorhynchus kisutch* - Fry	96 hours
	Chronic NOEC 0.74 mg/l	Daphnia - *Ceriodaphnia dubia*	7 days
p-Xylene	Acute EC50 4.73 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 2 ul/L Marine water	Fish - *Morone saxatilis* - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.714 mg/l Fresh water	Fish - *Danio rerio*	35 days

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Flame Ionization Detector Sample B				
p-Xylene	OECD 301F Ready Biodegradability - Manometric Respirometry Test	98 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Flame Ionization Detector Sample A			
Acetone	-	-	Readily
Toluene	-	-	Readily
Flame Ionization Detector Sample B			
Acetone	-	-	Readily
Toluene	-	-	Readily
p-Xylene	-	-	Readily

12.3 Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Flame Ionization Detector Sample A			
Acetone	-0.23	3	Low
Toluene	2.73	90	Low
Flame Ionization Detector Sample B			
Acetone	-0.23	3	Low
Toluene	2.73	90	Low
p-Xylene	3.15	8.1 to 25.9	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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
Flame Ionization Detector Sample A			
Acetone (I)	67-64-1	Listed	U002
Flame Ionization Detector Sample B			
Acetone (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 IMO instruments : 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: p-Xylene; nonane; Heptane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 307: Toluene

Clean Water Act (CWA) 311: Toluene; m-Cresol; o-xylene; m-Xylene; p-Xylene

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

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification :

Flame Ionization Detector Sample A	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - 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 - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
Flame Ionization Detector Sample A		
Acetone	≥90	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
Toluene	≤0.3	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - 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 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid
Flame Ionization Detector Sample B		
Acetone	≥90	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
Toluene	≤0.3	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - 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 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid
p-Xylene	≤0.3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - 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 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid HNOC - Defatting irritant

State regulations

Massachusetts : The following components are listed: ACETONE

New York : The following components are listed: Acetone

New Jersey : The following components are listed: ACETONE; TOLUENE; m-CRESOL

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.

Section 15. Regulatory information

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

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

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Flame Ionization Detector Sample A	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
EYE IRRITATION - Category 2A	Calculation method
TOXIC TO REPRODUCTION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
Flame Ionization Detector Sample B	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
EYE IRRITATION - Category 2A	Calculation method

Section 16. Other information

TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method Calculation method

History

Date of issue/Date of revision : 02/12/2024

Date of previous issue : 01/28/2021

Version : 8

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

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