

# SAFETY DATA SHEET

ES-TOF Biopolymer Analysis Reference Mass Standards Kit, Part Number  
G1969-85003

## Section 1. Identification

### 1.1 Product identifier

<b>Product name</b>	: ES-TOF Biopolymer Analysis Reference Mass Standards Kit, Part Number G1969-85003	
<b>Part No. (Chemical Kit)</b>	: G1969-85003	
<b>Part No.</b>	: <input checked="" type="checkbox"/> 1.0 M Ammonium formate in deionized, nanopure water	Compound 1
	: 5mM Purine in Acetonitrile Solution	Compound 2
	: 0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Compound 3
	: 0.1 mM Hexamethoxyphosphazine in acetonitrile	Compound 4
	: 0.2 mM Hexakis(1H,1H,4H- hexafluorobutyloxy)phosphazine in acetonitrile	Compound 5
	: 0.2 mM Hexakis(1H,1H,6H- decafluorohexyloxy)phosphazine in acetonitrile	Compound 6
	: 0.5 mM Hexakis(1H,1H,8H- tetradecafluorooctyloxy)phosphazine in acetonitrile	Compound 7
<b>Validation date</b>	: 1/20/2018	

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

<b>Material uses</b>	: <input checked="" type="checkbox"/> Reagents and Standards for Analytical Chemistry Laboratory Use	
	: <input checked="" type="checkbox"/> 1.0 M Ammonium formate in deionized, nanopure water	2.2 ml
	: 5mM Purine in Acetonitrile Solution	2.2 ml
	: 0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	2.2 ml
	: 0.1 mM Hexamethoxyphosphazine in acetonitrile	2.2 ml
	: 0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile	2.2 ml
	: 0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile	2.2 ml
	: 0.5 mM Hexakis(1H,1H,8H- tetradecafluorooctyloxy)phosphazine in acetonitrile	2.2 ml

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

<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. 5301 Stevens Creek Blvd Santa Clara, CA 95051, USA 800-227-9770
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### 1.4 Emergency telephone number

<b>In case of emergency</b>	: CHEMTREC®: 1-800-424-9300
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## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

<b>OSHA/HCS status</b>	: 17.0 M Ammonium formate in deionized, nanopure water	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
	5mM Purine in Acetonitrile Solution	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	0.1 mM Hexamethoxyphosphazine in acetonitrile	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### 5mM Purine in Acetonitrile Solution

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

#### 0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

#### 0.1 mM Hexamethoxyphosphazine in acetonitrile

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

## Section 2. Hazards identification

### 0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

### 0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

### 0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

### Ingredients of unknown toxicity

: 0.0 M Ammonium formate in deionized, nanopure water	Percentage of the mixture consisting of ingredient (s) of unknown dermal toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%
	Percentage of the mixture consisting of ingredient (s) of unknown oral toxicity: 1 - 10%

## [2.2 GHS label elements](#)

## Section 2. Hazards identification

### Hazard pictograms

5mM Purine in Acetonitrile Solution	
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	
0.1 mM Hexamethoxyphosphazine in acetonitrile	
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	

### Signal word

0.0 M Ammonium formate in deionized, nanopure water	No signal word.
5mM Purine in Acetonitrile Solution	Danger
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Danger
0.1 mM Hexamethoxyphosphazine in acetonitrile	Danger
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Danger
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Danger
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Danger

### Hazard statements

0.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
5mM Purine in Acetonitrile Solution	H225 - Highly flammable liquid and vapor. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	H225 - Highly flammable liquid and vapor.

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0.1 mM Hexamethoxyphosphazine in acetonitrile	<p>H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.            H319 - Causes serious eye irritation.            H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)            H225 - Highly flammable liquid and vapor.</p>
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	<p>H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.            H319 - Causes serious eye irritation.            H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)            H225 - Highly flammable liquid and vapor.</p>
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	<p>H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.            H319 - Causes serious eye irritation.            H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)            H225 - Highly flammable liquid and vapor.</p>
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	<p>H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.            H319 - Causes serious eye irritation.            H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)            H225 - Highly flammable liquid and vapor.</p>
<p><b>Precautionary statements</b>  <b>Prevention</b></p>	<p>H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.            H319 - Causes serious eye irritation.            H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)</p>

: 7.0 M Ammonium formate in deionized, nanopure water  
 5mM Purine in Acetonitrile Solution

Not applicable.

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.  
 P260 - Do not breathe vapor.  
 P270 - Do not eat, drink or smoke when using this

## Section 2. Hazards identification

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	<p>product.            P264 - Wash hands thoroughly after handling.            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.            P260 - Do not breathe vapor.            P270 - Do not eat, drink or smoke when using this product.</p>
0.1 mM Hexamethoxyphosphazine in acetonitrile	<p>P264 - Wash hands thoroughly after handling.            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.            P260 - Do not breathe vapor.            P270 - Do not eat, drink or smoke when using this product.</p>
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	<p>P264 - Wash hands thoroughly after handling.            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.            P260 - Do not breathe vapor.            P270 - Do not eat, drink or smoke when using this product.</p>
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	<p>P264 - Wash hands thoroughly after handling.            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</p>

## Section 2. Hazards identification

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile

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.  
 P260 - Do not breathe vapor.  
 P270 - Do not eat, drink or smoke when using this product.  
 P264 - Wash hands thoroughly after handling.  
 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.  
 P260 - Do not breathe vapor.  
 P270 - Do not eat, drink or smoke when using this product.  
 P264 - Wash hands thoroughly after handling.

### Response

: 7.0 M Ammonium formate in deionized, nanopure water  
 5mM Purine in Acetonitrile Solution

Not applicable.

P314 - Get medical attention if you feel unwell.

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.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.

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

P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.

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.

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

P314 - Get medical attention if you feel unwell.

## Section 2. Hazards identification

0.1 mM Hexamethoxyphosphazine in acetonitrile	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical attention.</p> <p>P314 - Get medical attention if you feel unwell.</p>
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical attention.</p> <p>P314 - Get medical attention if you feel unwell.</p>
	<p>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.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a</p>



## Section 2. Hazards identification

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile



POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.  
 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.  
 P314 - Get medical attention if you feel unwell.

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.  
 P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.  
 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.  
 P314 - Get medical attention if you feel unwell.

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile

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.  
 P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.  
 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.

## Section 2. Hazards identification

<b>Storage</b>	:  7.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	Not applicable.
		P403 - Store in a well-ventilated place.
		P235 - Keep cool.
		P403 - Store in a well-ventilated place.
		P235 - Keep cool.
		P403 - Store in a well-ventilated place.
		P235 - Keep cool.
<b>Disposal</b>	:  7.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	Not applicable.
		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.
		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.
		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.
<b>Supplemental label elements</b>	:  7.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	None known.
		None known.
		None known.
		None known.
		None known.
		None known.
		None known.

## Section 2. Hazards identification

tetradecafluorooctyloxy)  
phosphazine in acetonitrile

### 2.3 Other hazards

#### Hazards not otherwise classified

: 1.0 M Ammonium formate in deionized, nanopure water	None known.
5mM Purine in Acetonitrile Solution	None known.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	None known.
0.1 mM Hexamethoxyphosphazine in acetonitrile	None known.
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	None known.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	None known.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	:	1.0 M Ammonium formate in deionized, nanopure water	Mixture
		5mM Purine in Acetonitrile Solution	Mixture
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Mixture
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Mixture
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Mixture
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Mixture
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Mixture

Ingredient name	%	CAS number
<b>1.0 M Ammonium formate in deionized, nanopure water</b> Ammonium formate	<10	540-69-2
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	≥75 - ≤90	75-05-8
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	≥90	75-05-8
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	≥90	75-05-8
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</b> Acetonitrile	≥90	75-05-8

## Section 3. Composition/information on ingredients

<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</b> Acetonitrile	≥90	75-05-8
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</b> Acetonitrile	≥90	75-05-8

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

<b>Eye contact</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	5mM Purine in Acetonitrile Solution	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.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	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.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	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.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile	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.
	<b>Inhalation</b>	: 1.0 M Ammonium formate in deionized, nanopure water

## Section 4. First aid measures

5mM Purine in Acetonitrile Solution

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

0.1 mM Hexamethoxyphosphazine in acetonitrile

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

0.2 mM Hexakis(1H,1H,4H-hexafluorobutoxy)phosphazine in

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is

## Section 4. First aid measures

acetonitrile

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile

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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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<b>Skin contact</b>	<p>: 1.0 M Ammonium formate in deionized, nanopure water</p> <p>5mM Purine in Acetonitrile Solution</p> <p>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</p> <p>0.1 mM Hexamethoxyphosphazine in acetonitrile</p> <p>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</p> <p>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</p> <p>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</p>	<p>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p> <p>Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.</p>
<b>Ingestion</b>	<p>: 1.0 M Ammonium formate in deionized, nanopure water</p> <p>5mM Purine in Acetonitrile</p>	<p>Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.</p> <p>Wash out mouth with water. Remove dentures if</p>

## Section 4. First aid measures

### Solution

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

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.

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.

0.1 mM Hexamethoxyphosphazine in acetonitrile

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.

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

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.



## Section 4. First aid measures

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

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.  
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.

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile

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

##### Eye contact

1.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
5mM Purine in Acetonitrile Solution	Causes serious eye irritation.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Causes serious eye irritation.
0.1 mM Hexamethoxyphosphazine in acetonitrile	Causes serious eye irritation.
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Causes serious eye irritation.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Causes serious eye irritation.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Causes serious eye irritation.

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<b>Inhalation</b>	:	0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
		5mM Purine in Acetonitrile Solution	Harmful if inhaled.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Harmful if inhaled.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Harmful if inhaled.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Harmful if inhaled.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Harmful if inhaled.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Harmful if inhaled.
<b>Skin contact</b>	:	0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
		5mM Purine in Acetonitrile Solution	Harmful in contact with skin.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Harmful in contact with skin.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Harmful in contact with skin.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
<b>Ingestion</b>	:	0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
		5mM Purine in Acetonitrile Solution	Harmful if swallowed.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Harmful if swallowed.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Harmful if swallowed.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Harmful if swallowed.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Harmful if swallowed.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Harmful if swallowed.

### Over-exposure signs/symptoms

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<b>Eye contact</b>	:	0.0 M Ammonium formate in deionized, nanopure water	No specific data.
		5mM Purine in Acetonitrile Solution	Adverse symptoms may include the following: pain or irritation watering redness
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	:	0.0 M Ammonium formate in deionized, nanopure water	No specific data.
		5mM Purine in Acetonitrile Solution	No specific data.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.

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<b>Skin contact</b>	:	1.0 M Ammonium formate in deionized, nanopure water	No specific data.
		5mM Purine in Acetonitrile Solution	No specific data.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.
<b>Ingestion</b>	:	1.0 M Ammonium formate in deionized, nanopure water	No specific data.
		5mM Purine in Acetonitrile Solution	No specific data.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.

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

<b>Notes to physician</b>	:	1.0 M Ammonium formate in deionized, nanopure water	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		5mM Purine in Acetonitrile Solution	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

## Section 4. First aid measures

	in acetonitrile	person may need to be kept under medical surveillance for 48 hours.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Specific treatments</b>	: 7.0 M Ammonium formate in deionized, nanopure water	No specific treatment.
	5mM Purine in Acetonitrile Solution	No specific treatment.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific treatment.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific treatment.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific treatment.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific treatment.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific treatment.
<b>Protection of first-aiders</b>	: 7.0 M Ammonium formate in deionized, nanopure water	No action shall be taken involving any personal risk or without suitable training.
	5mM Purine in Acetonitrile Solution	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	0.2 mM Hexakis(1H,1H,6H-	No action shall be taken involving any personal risk

## Section 4. First aid measures

decafluorohexyloxy)phosphazine in acetonitrile	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile	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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: 7.0 M Ammonium formate in deionized, nanopure water	Use an extinguishing agent suitable for the surrounding fire.
	5mM Purine in Acetonitrile Solution	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	: 7.0 M Ammonium formate in deionized, nanopure water	None known.
	5mM Purine in Acetonitrile Solution	Do not use water jet.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Do not use water jet.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Do not use water jet.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Do not use water jet.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Do not use water jet.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile	Do not use water jet.

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

## Section 5. Fire-fighting measures

### Specific hazards arising from the chemical

: 0.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	In a fire or if heated, a pressure increase will occur and the container may burst. 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.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	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.
0.1 mM Hexamethoxyphosphazine in acetonitrile	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.
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	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.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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.

## Section 5. Fire-fighting measures

<b>Hazardous thermal decomposition products</b>	:	0.0 M Ammonium formate in deionized, nanopure water	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
		5mM Purine in Acetonitrile Solution	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides cyanides
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides cyanides
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides cyanides
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Decomposition products may include the following materials:  carbon dioxide carbon monoxide nitrogen oxides cyanides

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	:	0.0 M Ammonium formate in deionized, nanopure water	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.
		5mM Purine in Acetonitrile Solution	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.
		0.5 mM Tris(2,4,6-trifluoromethyl)	Promptly isolate the scene by removing all persons



## Section 5. Fire-fighting measures

	-1,3,5 triazine in acetonitrile	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.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	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.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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>	: 7.0 M Ammonium formate in deionized, nanopure water	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	5mM Purine in Acetonitrile Solution	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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**

: 1.0 M Ammonium formate in deionized, nanopure water

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. Put on appropriate personal protective equipment.

5mM Purine in Acetonitrile Solution

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.

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

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.

0.1 mM Hexamethoxyphosphazine in acetonitrile

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.

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

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.

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

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.

0.5 mM Hexakis(1H,1H,8H-

No action shall be taken involving any personal

## Section 6. Accidental release measures

tetradecafluorooctyloxy)  
phosphazine in acetonitrile

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 :** 7.0 M Ammonium formate in deionized, nanopure water

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".  
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".  
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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".

5mM Purine in Acetonitrile Solution

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

0.1 mM Hexamethoxyphosphazine in acetonitrile

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile

### 6.2 Environmental precautions

**:** 7.0 M Ammonium formate in deionized, nanopure water

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).

5mM Purine in Acetonitrile Solution

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).

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

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).

0.1 mM Hexamethoxyphosphazine in acetonitrile

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).

## Section 6. Accidental release measures

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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).
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	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).
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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

<b>Methods for cleaning up</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Stop leak if without risk. Move containers from spill area. 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.
5mM Purine in Acetonitrile Solution		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.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile		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.
0.1 mM Hexamethoxyphosphazine in acetonitrile		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.
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile		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.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile		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 6. Accidental release measures

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile

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

: 7.0 M Ammonium formate in deionized, nanopure water  
5mM Purine in Acetonitrile Solution

Put on appropriate personal protective equipment (see Section 8).  
Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

0.1 mM Hexamethoxyphosphazine in acetonitrile

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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,

## Section 7. Handling and storage

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

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.

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

## Section 7. Handling and storage

<p><b>Advice on general occupational hygiene</b></p>	<p>: 1.0 M Ammonium formate in deionized, nanopure water</p>	<p>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.</p>
	<p>5mM Purine in Acetonitrile Solution</p>	<p>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.</p>
	<p>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</p>	<p>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.</p>
	<p>0.1 mM Hexamethoxyphosphazine in acetonitrile</p>	<p>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.</p>
	<p>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</p>	<p>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.</p>
	<p>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</p>	<p>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.</p>
	<p>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</p>	<p>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.</p>
<p><b>7.2 Conditions for safe storage, including any incompatibilities</b></p>	<p>: 1.0 M Ammonium formate in deionized, nanopure water</p>	<p>Store in accordance with local regulations. 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. 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</p>

## Section 7. Handling and storage

5mM Purine in Acetonitrile Solution

containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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. 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.

0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile

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. 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.

0.1 mM Hexamethoxyphosphazine in acetonitrile

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. 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.

0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

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. 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.



## Section 7. Handling and storage

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile

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. 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.

0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile

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. 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

- : 1.0 M Ammonium formate in deionized, nanopure water
- 5mM Purine in Acetonitrile Solution
- 0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile
- 0.1 mM Hexamethoxyphosphazine in acetonitrile
- 0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile
- 0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile
- 0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

#### Industrial sector specific solutions

- : 1.0 M Ammonium formate in deionized, nanopure water
- 5mM Purine in Acetonitrile Solution
- 0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile
- 0.1 mM Hexamethoxyphosphazine in acetonitrile
- 0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

## Section 7. Handling and storage

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not applicable.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>1.0 M Ammonium formate in deionized, nanopure water</b> Ammonium formate	None.
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	<p><b>ACGIH TLV (United States, 3/2017).</b> <b>Absorbed through skin.</b> TWA: 20 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 40 ppm 8 hours. TWA: 70 mg/m<sup>3</sup> 8 hours. STEL: 60 ppm 15 minutes. STEL: 105 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 20 ppm 10 hours. TWA: 34 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 40 ppm 8 hours. TWA: 70 mg/m<sup>3</sup> 8 hours.</p>
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	<p><b>ACGIH TLV (United States, 3/2017).</b> <b>Absorbed through skin.</b> TWA: 20 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 40 ppm 8 hours. TWA: 70 mg/m<sup>3</sup> 8 hours. STEL: 60 ppm 15 minutes. STEL: 105 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b> TWA: 20 ppm 10 hours. TWA: 34 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b> TWA: 40 ppm 8 hours. TWA: 70 mg/m<sup>3</sup> 8 hours.</p>
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	<p><b>ACGIH TLV (United States, 3/2017).</b> <b>Absorbed through skin.</b> TWA: 20 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 40 ppm 8 hours. TWA: 70 mg/m<sup>3</sup> 8 hours. STEL: 60 ppm 15 minutes. STEL: 105 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b></p>

## Section 8. Exposure controls/personal protection

**0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile**  
Acetonitrile

TWA: 20 ppm 10 hours.  
TWA: 34 mg/m<sup>3</sup> 10 hours.  
**OSHA PEL (United States, 6/2016).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.

**ACGIH TLV (United States, 3/2017).**  
**Absorbed through skin.**  
TWA: 20 ppm 8 hours.  
**OSHA PEL 1989 (United States, 3/1989).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.  
STEL: 60 ppm 15 minutes.  
STEL: 105 mg/m<sup>3</sup> 15 minutes.  
**NIOSH REL (United States, 10/2016).**  
TWA: 20 ppm 10 hours.  
TWA: 34 mg/m<sup>3</sup> 10 hours.  
**OSHA PEL (United States, 6/2016).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.

**0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile**  
Acetonitrile

**ACGIH TLV (United States, 3/2017).**  
**Absorbed through skin.**  
TWA: 20 ppm 8 hours.  
**OSHA PEL 1989 (United States, 3/1989).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.  
STEL: 60 ppm 15 minutes.  
STEL: 105 mg/m<sup>3</sup> 15 minutes.  
**NIOSH REL (United States, 10/2016).**  
TWA: 20 ppm 10 hours.  
TWA: 34 mg/m<sup>3</sup> 10 hours.  
**OSHA PEL (United States, 6/2016).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.

**0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile**  
Acetonitrile

**ACGIH TLV (United States, 3/2017).**  
**Absorbed through skin.**  
TWA: 20 ppm 8 hours.  
**OSHA PEL 1989 (United States, 3/1989).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.  
STEL: 60 ppm 15 minutes.  
STEL: 105 mg/m<sup>3</sup> 15 minutes.  
**NIOSH REL (United States, 10/2016).**  
TWA: 20 ppm 10 hours.  
TWA: 34 mg/m<sup>3</sup> 10 hours.  
**OSHA PEL (United States, 6/2016).**  
TWA: 40 ppm 8 hours.  
TWA: 70 mg/m<sup>3</sup> 8 hours.

## Section 8. Exposure controls/personal protection

### 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

##### Physical state

0.0 M Ammonium formate in deionized, nanopure water	Liquid.
5mM Purine in Acetonitrile Solution	Liquid.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Liquid.
0.1 mM Hexamethoxyphosphazine in acetonitrile	Liquid.

## Section 9. Physical and chemical properties

	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Liquid.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Liquid.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Liquid.
<b>Color</b>	: 7.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Not available.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not available.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not available.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not available.
<b>Odor</b>	: 7.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Ether-like
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Ether-like
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Ether-like
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Ether-like
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Ether-like
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Ether-like
<b>Odor threshold</b>	: 7.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	70 ppm
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	70 ppm
	0.1 mM Hexamethoxyphosphazine in acetonitrile	70 ppm
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	70 ppm
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	70 ppm
	0.5 mM Hexakis(1H,1H,8H-	70 ppm

## Section 9. Physical and chemical properties

	tetradecafluorooctyloxy)	
	phosphazine in acetonitrile	
<b>pH</b>	: 17.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Not available.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not available.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not available.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not available.
<b>Melting point</b>	: 17.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	-45°C (-49°F)
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	-45°C (-49°F)
	0.1 mM Hexamethoxyphosphazine in acetonitrile	-45°C (-49°F)
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	-45°C (-49°F)
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	-45°C (-49°F)
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	-45°C (-49°F)
<b>Boiling point</b>	: 17.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Not available.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	81.6°C (178.9°F)
	0.1 mM Hexamethoxyphosphazine in acetonitrile	81.6°C (178.9°F)
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	81.6°C (178.9°F)
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	81.6°C (178.9°F)
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	81.6°C (178.9°F)

## Section 9. Physical and chemical properties

<b>Flash point</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Closed cup: -18 to 23°C (-0.4 to 73.4°F)
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Closed cup: 12.8°C (55°F)
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Closed cup: 12.8°C (55°F)
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Closed cup: 12.8°C (55°F)
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Closed cup: 12.8°C (55°F)
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Closed cup: 12.8°C (55°F)
<b>Evaporation rate</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	5.79 (butyl acetate = 1)
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	5.79 (butyl acetate = 1)
	0.1 mM Hexamethoxyphosphazine in acetonitrile	5.79 (butyl acetate = 1)
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	5.79 (butyl acetate = 1)
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	5.79 (butyl acetate = 1)
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	5.79 (butyl acetate = 1)
<b>Flammability (solid, gas)</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Not applicable.
	5mM Purine in Acetonitrile Solution	Not applicable.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not applicable.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Not applicable.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not applicable.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not applicable.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not applicable.

## Section 9. Physical and chemical properties

<b>Lower and upper explosive (flammable) limits</b>	:	7.0 M Ammonium formate in deionized, nanopure water	Not available.
		5mM Purine in Acetonitrile Solution	Lower: 4.4%
			Upper: 16%
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Lower: 4.4%
			Upper: 16%
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Lower: 4.4%
			Upper: 16%
<b>Vapor pressure</b>	:	7.0 M Ammonium formate in deionized, nanopure water	Not available.
		5mM Purine in Acetonitrile Solution	11.6 kPa (87 mm Hg) [room temperature]
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	11.6 kPa (87 mm Hg) [room temperature]
		0.1 mM Hexamethoxyphosphazine in acetonitrile	11.6 kPa (87 mm Hg) [room temperature]
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	11.6 kPa (87 mm Hg) [room temperature]
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	11.6 kPa (87 mm Hg) [room temperature]
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	11.6 kPa (87 mm Hg) [room temperature]
<b>Vapor density</b>	:	7.0 M Ammonium formate in deionized, nanopure water	Not available.
		5mM Purine in Acetonitrile Solution	1.42 [Air = 1]
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	1.42 [Air = 1]
		0.1 mM Hexamethoxyphosphazine in acetonitrile	1.42 [Air = 1]
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	1.42 [Air = 1]
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	1.42 [Air = 1]
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	1.42 [Air = 1]



## Section 9. Physical and chemical properties

<b>Relative density</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	0.787
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	0.787
	0.1 mM Hexamethoxyphosphazine in acetonitrile	0.787
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	0.787
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	0.787
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	0.787
<b>Solubility</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Easily soluble in the following materials: cold water and hot water.
	5mM Purine in Acetonitrile Solution	Soluble in the following materials: cold water and hot water.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Soluble in the following materials: cold water and hot water.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Soluble in the following materials: cold water and hot water.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Soluble in the following materials: cold water and hot water.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: 1.0 M Ammonium formate in deionized, nanopure water	Not available.
	5mM Purine in Acetonitrile Solution	Not available.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not available.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not available.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not available.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not available.

## Section 9. Physical and chemical properties

<b>Auto-ignition temperature</b>	:	0.0 M Ammonium formate in deionized, nanopure water	Not available.
		5mM Purine in Acetonitrile Solution	524°C (975.2°F)
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	524°C (975.2°F)
		0.1 mM Hexamethoxyphosphazine in acetonitrile	524°C (975.2°F)
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	524°C (975.2°F)
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	524°C (975.2°F)
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	524°C (975.2°F)
		<b>Decomposition temperature</b>	:
		5mM Purine in Acetonitrile Solution	Not available.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not available.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Not available.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not available.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not available.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not available.
<b>Viscosity</b>	:	0.0 M Ammonium formate in deionized, nanopure water	Not available.
		5mM Purine in Acetonitrile Solution	Not available.
		0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Not available.
		0.1 mM Hexamethoxyphosphazine in acetonitrile	Not available.
		0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Not available.
		0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Not available.
		0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p> <p>No specific test data related to reactivity available for this product or its ingredients.</p>
<b>10.2 Chemical stability</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>The product is stable.</p> <p>The product is stable.</p> <p>The product is stable.</p> <p>The product is stable.</p> <p>The product is stable.</p> <p>The product is stable.</p> <p>The product is stable.</p>
<b>10.3 Possibility of hazardous reactions</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p> <p>Under normal conditions of storage and use, hazardous reactions will not occur.</p>

## Section 10. Stability and reactivity

<b>10.4 Conditions to avoid</b>	: 17.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	No specific data.  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.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	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.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	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.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	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.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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.
<b>10.5 Incompatible materials</b>	: 17.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution	May react or be incompatible with oxidizing materials. Reactive or incompatible with the following materials: oxidizing materials
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Reactive or incompatible with the following materials: oxidizing materials
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Reactive or incompatible with the following materials: oxidizing materials
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Reactive or incompatible with the following materials:  oxidizing materials
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Reactive or incompatible with the following materials:  oxidizing materials
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Reactive or incompatible with the following materials:  oxidizing materials

## Section 10. Stability and reactivity

<b>10.6 Hazardous decomposition products</b>	: 7.0 M Ammonium formate in deionized, nanopure water	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	5mM Purine in Acetonitrile Solution	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	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
5mM Purine in Acetonitrile Solution Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
0.1 mM Hexamethoxyphosphazine in acetonitrile Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
0.5 mM Hexakis(1H,1H,8H-				

## Section 11. Toxicological information

<b>tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
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### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-

### Sensitization

Not available.

### Mutagenicity

## Section 11. Toxicological information

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver

### Aspiration hazard

## Section 11. Toxicological information

Not available.

<b>Information on the likely routes of exposure</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>Not available.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p> <p>Routes of entry anticipated: Oral, Dermal, Inhalation.</p>
<b>Potential acute health effects</b>		
<b>Eye contact</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>No known significant effects or critical hazards.</p> <p>Causes serious eye irritation.</p> <p>Causes serious eye irritation.</p> <p>Causes serious eye irritation.</p> <p>Causes serious eye irritation.</p> <p>Causes serious eye irritation.</p> <p>Causes serious eye irritation.</p>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>: 7.0 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<p>No known significant effects or critical hazards.</p> <p>Harmful if inhaled.</p> <p>Harmful if inhaled.</p> <p>Harmful if inhaled.</p> <p>Harmful if inhaled.</p> <p>Harmful if inhaled.</p> <p>Harmful if inhaled.</p>



## Section 11. Toxicological information

<b>Skin contact</b>	: 7.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	Harmful in contact with skin.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Harmful in contact with skin.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Harmful in contact with skin.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Harmful in contact with skin.
<b>Ingestion</b>	: 7.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	Harmful if swallowed.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Harmful if swallowed.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Harmful if swallowed.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Harmful if swallowed.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Harmful if swallowed.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Harmful if swallowed.

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

<b>Eye contact</b>	: 7.0 M Ammonium formate in deionized, nanopure water	No specific data.
	5mM Purine in Acetonitrile Solution	Adverse symptoms may include the following: pain or irritation watering redness
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
	0.1 mM Hexamethoxyphosphazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering redness
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: pain or irritation watering

## Section 11. Toxicological information

	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	redness Adverse symptoms may include the following:
		pain or irritation watering redness
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following:
		pain or irritation watering redness
<b>Inhalation</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No specific data.
	5mM Purine in Acetonitrile Solution	No specific data.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.
<b>Skin contact</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No specific data.
	5mM Purine in Acetonitrile Solution	No specific data.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.
<b>Ingestion</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No specific data.
	5mM Purine in Acetonitrile Solution	No specific data.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No specific data.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No specific data.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No specific data.

## Section 11. Toxicological information

0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No specific data.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No specific data.

### 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>	<ul style="list-style-type: none"> <li>0.1 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> <li>May cause damage to organs through prolonged or repeated exposure.</li> </ul>
<b>Carcinogenicity</b>	<ul style="list-style-type: none"> <li>0.1 M Ammonium formate in deionized, nanopure water</li> <li>5mM Purine in Acetonitrile Solution</li> <li>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</li> <li>0.1 mM Hexamethoxyphosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</li> <li>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</li> <li>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</li> </ul>	<ul style="list-style-type: none"> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> <li>No known significant effects or critical hazards.</li> </ul>

## Section 11. Toxicological information

<b>Mutagenicity</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	No known significant effects or critical hazards.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No known significant effects or critical hazards.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
<b>Teratogenicity</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	No known significant effects or critical hazards.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No known significant effects or critical hazards.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
<b>Developmental effects</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	No known significant effects or critical hazards.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No known significant effects or critical hazards.
	0.1 mM Hexamethoxyphosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
	0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
<b>Fertility effects</b>	: 1.0 M Ammonium formate in deionized, nanopure water	No known significant effects or critical hazards.
	5mM Purine in Acetonitrile Solution	No known significant effects or critical hazards.
	0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	No known significant effects or critical hazards.
	0.1 mM Hexamethoxyphosphazine	No known significant effects or critical hazards.

## Section 11. Toxicological information

in acetonitrile	
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
<b>5mM Purine in Acetonitrile Solution</b>	
Oral	555.9 mg/kg
Dermal	1222.9 mg/kg
Inhalation (vapors)	12.23 mg/l
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b>	
Oral	500.1 mg/kg
Dermal	1100.2 mg/kg
Inhalation (vapors)	11 mg/l
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b>	
Oral	500 mg/kg
Dermal	1100 mg/kg
Inhalation (vapors)	11 mg/l
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</b>	
Oral	500.1 mg/kg
Dermal	1100.2 mg/kg
Inhalation (vapors)	11 mg/l
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</b>	
Oral	500.2 mg/kg
Dermal	1100.4 mg/kg
Inhalation (vapors)	11 mg/l
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</b>	
Oral	500.6 mg/kg
Dermal	1101.3 mg/kg
Inhalation (vapors)	11.01 mg/l

#### Other information

: 7.0 M Ammonium formate in deionized, nanopure water	Not available.
5mM Purine in Acetonitrile Solution	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.
0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness

## Section 11. Toxicological information

0.1 mM Hexamethoxyphosphazine in acetonitrile	of breath, cyanosis, rapid heart beat, unconsciousness and possible death. Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.
0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.
0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.
0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile	Adverse symptoms may include the following: May cause headache, weakness, dizziness, shortness of breath, cyanosis, rapid heart beat, unconsciousness and possible death.

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days

## Section 12. Ecological information

<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	-	-	Readily
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	-	-	Readily
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	-	-	Readily
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	-	-	Readily
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	-	-	Readily
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	-	-	Readily

### 12.3 Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	-0.34	3	low
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	-0.34	3	low
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	-0.34	3	low
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	-0.34	3	low
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	-0.34	3	low
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	-0.34	3	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**



## Section 13. Disposal considerations






Ingredient	CAS #	Status	Reference number
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile (I,T)	75-05-8	Listed	U003
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile (I,T)	75-05-8	Listed	U003
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile (I,T)	75-05-8	Listed	U003
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</b> Acetonitrile (I,T)	75-05-8	Listed	U003
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</b> Acetonitrile (I,T)	75-05-8	Listed	U003
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</b> Acetonitrile (I,T)	75-05-8	Listed	U003

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 Classification	TDG Classification	Mexico Classification	IMDG	IATA
<b>UN number</b>	UN3316	UN3316	UN3316	UN3316	UN3316
<b>UN proper shipping name</b>	Chemical kits	CHEMICAL KIT	EQUIPO QUIMICO	CHEMICAL KIT	Chemical kit
<b>Transport hazard class(es)</b>	9 	9 	9 	9 	9 
<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

**Remarks** : Excepted Quantity

## Section 14. Transport information

- DOT Classification** : **Reportable quantity** 5934.7 lbs / 2694.3 kg. The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.  
**Limited quantity** Yes.  
**Packaging instruction** Exceptions: 161. Non-bulk: 161. Bulk: None.  
**Quantity limitation** Passenger aircraft/rail: 10 kg. Cargo aircraft: 10 kg.  
**Special provisions** 15
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9).  
**Passenger Carrying Road or Rail Index** 10  
**Special provisions** 65, 141
- Mexico Classification** : **Special provisions** 251, 340
- IMDG** : **Emergency schedules** F-A, \_S-P\_  
**Special provisions** 251, 340
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.  
**Special provisions** A44, A163
- 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 8(a) PAIR:** Acetonitrile  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**Clean Water Act (CWA) 307:** Acetonitrile

**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)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

## Section 15. Regulatory information

[SARA 304 RQ](#) : Not applicable.

[SARA 311/312](#)

**Classification**

<p>7.0 M Ammonium formate in deionized, nanopure water 5mM Purine in Acetonitrile Solution</p>	<p>Not applicable.</p> <p>FLAMMABLE LIQUIDS - Category 2</p> <p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>
<p>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>
<p>0.1 mM Hexamethoxyphosphazine in acetonitrile</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>
<p>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy)phosphazine in acetonitrile</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>
<p>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy)phosphazine in acetonitrile</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>
<p>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2 FLAMMABLE LIQUIDS - Category 2</p>

[Composition/information on ingredients](#)

## Section 15. Regulatory information

Name	%	Classification
<b>1.0 M Ammonium formate in deionized, nanopure water</b> Ammonium formate	<10	EYE IRRITATION - Category 2A
<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	≥75 - ≤90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2
<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2
<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2
<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2
<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2
<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy) phosphazine in acetonitrile</b> Acetonitrile	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4

## Section 15. Regulatory information

ACUTE TOXICITY (inhalation) - Category 4  
 EYE IRRITATION - Category 2A  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	<b>1.0 M Ammonium formate in deionized, nanopure water</b> Ammonium formate	540-69-2	<10
	<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	75-05-8	≥75 - ≤90
	<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.5 mM Hexakis(1H,1H,8H-tetradecafluorooctyloxy)phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
<b>Supplier notification</b>	<b>1.0 M Ammonium formate in deionized, nanopure water</b> Ammonium formate	540-69-2	<10
	<b>5mM Purine in Acetonitrile Solution</b> Acetonitrile	75-05-8	≥75 - ≤90
	<b>0.5 mM Tris(2,4,6-trifluoromethyl)-1,3,5 triazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.1 mM Hexamethoxyphosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.2 mM Hexakis(1H,1H,4H-hexafluorobutyloxy) phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.2 mM Hexakis(1H,1H,6H-decafluorohexyloxy) phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
	<b>0.5 mM Hexakis(1H,1H,8H-</b>		

## Section 15. Regulatory information

	<b>tetradecafluorooctyloxy)phosphazine in acetonitrile</b> Acetonitrile	75-05-8	≥90
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SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : The following components are listed: ACETONITRILE  
**New York** : The following components are listed: Acetonitrile; Ethanenitrile  
**New Jersey** : The following components are listed: ACETONITRILE; CYANOMETHANE  
**Pennsylvania** : The following components are listed: ACETONITRILE

### International regulations

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

Not listed.

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

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** : Not determined.  
**Canada** : Not determined.  
**China** : Not determined.  
**Europe** : Not determined.  
**Japan** : **Japan inventory (ENCS)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**Malaysia** : Not determined.  
**New Zealand** : Not determined.  
**Philippines** : Not determined.  
**Republic of Korea** : Not determined.  
**Taiwan** : Not determined.  
**Thailand** : Not determined.  
**Turkey** : Not determined.  
**United States** : Not determined.  
**Viet Nam** : Not determined.

## Section 16. Other information

### History

**Date of issue** : 01/20/2018

**Date of previous issue** : 07/21/2017.

**Version** : 6

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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