

SAFETY DATA SHEET

SFC Caffeine in Methanol Standard, Part Number 5190-0552

Section 1. Identification

Product identifier : SFC Caffeine in Methanol Standard, Part Number 5190-0552

Part no. (chemical kit) : 5190-0552

Part no. : SFC Caffeine in Methanol Standard (Solvent Blank) 5190-0552-6
 SFC Caffeine in Methanol Standard (2.0 µg/mL) 5190-0552-1
 SFC Caffeine in Methanol Standard (10.0 µg/mL) 5190-0552-2
 SFC Caffeine in Methanol Standard (50.0 µg/mL) 5190-0552-3
 SFC Caffeine in Methanol Standard (100.0 µg/mL) 5190-0552-4
 SFC Caffeine in Methanol Standard (200.0 µg/mL) 5190-0552-5

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

Identified uses : ☒ Reagents and Standards for Analytical Chemistry Laboratory Use
☒ SFC Caffeine in Methanol Standard (Solvent Blank) 1 X 2 ml
 SFC Caffeine in Methanol Standard (2.0 µg/mL) 1 X 2 ml
 SFC Caffeine in Methanol Standard (10.0 µg/mL) 1 X 2 ml
 SFC Caffeine in Methanol Standard (50.0 µg/mL) 2 X 2 ml
 SFC Caffeine in Methanol Standard (100.0 µg/mL) 1 X 2 ml
 SFC Caffeine in Methanol Standard (200.0 µg/mL) 1 X 2 ml

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

☒ SFC Caffeine in Methanol Standard (Solvent Blank)

H225	FLAMMABLE LIQUIDS - Category 2
H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

☒ SFC Caffeine in Methanol Standard (2.0 µg/mL)

H225	FLAMMABLE LIQUIDS - Category 2
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Section 2. Hazard identification

H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

SFC Caffeine in Methanol Standard (10.0 µg/mL)

H225	FLAMMABLE LIQUIDS - Category 2
H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

SFC Caffeine in Methanol Standard (50.0 µg/mL)

H225	FLAMMABLE LIQUIDS - Category 2
H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

SFC Caffeine in Methanol Standard (100.0 µg/mL)

H225	FLAMMABLE LIQUIDS - Category 2
H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

SFC Caffeine in Methanol Standard (200.0 µg/mL)

H225	FLAMMABLE LIQUIDS - Category 2
H301	ACUTE TOXICITY (oral) - Category 3
H311	ACUTE TOXICITY (dermal) - Category 3
H331	ACUTE TOXICITY (inhalation) - Category 3
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

[GHS label elements](#)

Section 2. Hazard identification

Hazard pictograms

: SFC Caffeine in Methanol Standard (Solvent Blank)



SFC Caffeine in Methanol Standard (2.0 µg/mL)



SFC Caffeine in Methanol Standard (10.0 µg/mL)



SFC Caffeine in Methanol Standard (50.0 µg/mL)



SFC Caffeine in Methanol Standard (100.0 µg/mL)



SFC Caffeine in Methanol Standard (200.0 µg/mL)



Signal word

: SFC Caffeine in Methanol Standard (Solvent Blank)
SFC Caffeine in Methanol Standard (2.0 µg/mL)
SFC Caffeine in Methanol Standard (10.0 µg/mL)
SFC Caffeine in Methanol Standard (50.0 µg/mL)
SFC Caffeine in Methanol Standard (100.0 µg/mL)
SFC Caffeine in Methanol Standard (200.0 µg/mL)

Danger

Danger

Danger

Danger

Danger

Danger

Hazard statements

: SFC Caffeine in Methanol Standard (Solvent Blank)

H225 - Highly flammable liquid and vapor.

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs. (central nervous system (CNS), optic nerve)

H225 - Highly flammable liquid and vapor.

SFC Caffeine in Methanol Standard (2.0 µg/mL)

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs.

H225 - Highly flammable liquid and vapor.

SFC Caffeine in Methanol Standard (10.0 µg/mL)

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs.

H225 - Highly flammable liquid and vapor.

SFC Caffeine in Methanol Standard (50.0 µg/mL)

Section 2. Hazard identification

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs.

H225 - Highly flammable liquid and vapor.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs.

H225 - Highly flammable liquid and vapor.

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

H370 - Causes damage to organs.

Precautionary statements

Prevention

: SFC Caffeine in Methanol
Standard (Solvent Blank)

P280 - Wear protective gloves and protective clothing.

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves and protective clothing.

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves and protective clothing.

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves and protective clothing.

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves and protective clothing.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P280 - Wear protective gloves and protective clothing.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this product.

Section 2. Hazard identification

Response

: SFC Caffeine in Methanol
Standard (Solvent Blank)

product.

P264 - Wash thoroughly after handling.

P308 + P311 - IF exposed or concerned: Call a
POISON CENTER or doctor.

P304 + P340, P311 - IF INHALED: Remove person
to fresh air and keep comfortable for breathing. Call
a POISON CENTER or doctor.

P301 + P310 - IF SWALLOWED: Immediately call a
POISON CENTER or doctor.

P361 + P364 - Take off immediately all contaminated
clothing and wash it before reuse.

P302 + P312, P352 - IF ON SKIN: Call a POISON
CENTER or doctor if you feel unwell. Wash with
plenty of water.

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

P308 + P311 - IF exposed or concerned: Call a
POISON CENTER or doctor.

P304 + P340, P311 - IF INHALED: Remove person
to fresh air and keep comfortable for breathing. Call
a POISON CENTER or doctor.

P301 + P310 - IF SWALLOWED: Immediately call a
POISON CENTER or doctor.

P361 + P364 - Take off immediately all contaminated
clothing and wash it before reuse.

P302 + P312, P352 - IF ON SKIN: Call a POISON
CENTER or doctor if you feel unwell. Wash with
plenty of water.

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

P308 + P311 - IF exposed or concerned: Call a
POISON CENTER or doctor.

P304 + P340, P311 - IF INHALED: Remove person
to fresh air and keep comfortable for breathing. Call
a POISON CENTER or doctor.

P301 + P310 - IF SWALLOWED: Immediately call a
POISON CENTER or doctor.

P361 + P364 - Take off immediately all contaminated
clothing and wash it before reuse.

P302 + P312, P352 - IF ON SKIN: Call a POISON
CENTER or doctor if you feel unwell. Wash with
plenty of water.

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

P308 + P311 - IF exposed or concerned: Call a
POISON CENTER or doctor.

P304 + P340, P311 - IF INHALED: Remove person
to fresh air and keep comfortable for breathing. Call
a POISON CENTER or doctor.

P301 + P310 - IF SWALLOWED: Immediately call a
POISON CENTER or doctor.

P361 + P364 - Take off immediately all contaminated
clothing and wash it before reuse.

P302 + P312, P352 - IF ON SKIN: Call a POISON
CENTER or doctor if you feel unwell. Wash with
plenty of water.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

P308 + P311 - IF exposed or concerned: Call a
POISON CENTER or doctor.

P304 + P340, P311 - IF INHALED: Remove person
to fresh air and keep comfortable for breathing. Call
a POISON CENTER or doctor.

P301 + P310 - IF SWALLOWED: Immediately call a
POISON CENTER or doctor.

P361 + P364 - Take off immediately all contaminated
clothing and wash it before reuse.

P302 + P312, P352 - IF ON SKIN: Call a POISON

Section 2. Hazard identification

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

CENTER or doctor if you feel unwell. Wash with plenty of water.
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
P304 + P340, P311 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse.
P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water.

Storage

: SFC Caffeine in Methanol
Standard (Solvent Blank)
SFC Caffeine in Methanol
Standard (2.0 µg/mL)
SFC Caffeine in Methanol
Standard (10.0 µg/mL)
SFC Caffeine in Methanol
Standard (50.0 µg/mL)
SFC Caffeine in Methanol
Standard (100.0 µg/mL)
SFC Caffeine in Methanol
Standard (200.0 µg/mL)

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Disposal

: SFC Caffeine in Methanol
Standard (Solvent Blank)

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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.

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

Supplemental label elements

: SFC Caffeine in Methanol
Standard (Solvent Blank)
SFC Caffeine in Methanol
Standard (2.0 µg/mL)
SFC Caffeine in Methanol
Standard (10.0 µg/mL)
SFC Caffeine in Methanol
Standard (50.0 µg/mL)
SFC Caffeine in Methanol
Standard (100.0 µg/mL)
SFC Caffeine in Methanol
Standard (200.0 µg/mL)

None known.

None known.

None known.

None known.

None known.

None known.

Section 2. Hazard identification

Other hazards which do not result in classification	SFC Caffeine in Methanol Standard (Solvent Blank)	None known.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	None known.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	None known.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	None known.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	None known.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	None known.

Section 3. Composition/information on ingredients

Substance/mixture	SFC Caffeine in Methanol Standard (Solvent Blank)	Substance
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Mixture
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Mixture
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Mixture
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Mixture
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Mixture

Ingredient name	Synonyms	% (w/w)	CAS number
SFC Caffeine in Methanol Standard (Solvent Blank)			
Methanol	Methanol	100	67-56-1
SFC Caffeine in Methanol Standard (2.0 µg/mL)			
Methanol	Methanol	≥80	67-56-1
SFC Caffeine in Methanol Standard (10.0 µg/mL)			
Methanol	Methanol	≥80	67-56-1
SFC Caffeine in Methanol Standard (50.0 µg/mL)			
Methanol	Methanol	≥80	67-56-1
SFC Caffeine in Methanol Standard (100.0 µg/mL)			
Methanol	Methanol	≥80	67-56-1
SFC Caffeine in Methanol Standard (200.0 µg/mL)			

Section 3. Composition/information on ingredients

Methanol	Methanol	≥80	67-56-1
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Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

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

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact

: SFC Caffeine in Methanol Standard (Solvent Blank)

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. If necessary, call a poison center or physician.

SFC Caffeine in Methanol Standard (2.0 µg/mL)

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. If necessary, call a poison center or physician.

SFC Caffeine in Methanol Standard (10.0 µg/mL)

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. If necessary, call a poison center or physician.

SFC Caffeine in Methanol Standard (50.0 µg/mL)

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. If necessary, call a poison center or physician.

SFC Caffeine in Methanol Standard (100.0 µg/mL)

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. If necessary, call a poison center or physician.

SFC Caffeine in Methanol Standard (200.0 µg/mL)

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. If necessary, call a poison center or physician.

Inhalation

: SFC Caffeine in Methanol Standard (Solvent Blank)

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

SFC Caffeine in Methanol Standard (2.0 µg/mL)

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

Section 4. First-aid measures

	an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	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

Section 4. First-aid measures

Skin contact

: SFC Caffeine in Methanol Standard (Solvent Blank)

dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SFC Caffeine in Methanol Standard (2.0 µg/mL)

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SFC Caffeine in Methanol Standard (10.0 µg/mL)

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SFC Caffeine in Methanol Standard (50.0 µg/mL)

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SFC Caffeine in Methanol Standard (100.0 µg/mL)

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SFC Caffeine in Methanol Standard (200.0 µg/mL)

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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First-aid measures

Ingestion

: SFC Caffeine in Methanol
Standard (Solvent Blank)

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give

Section 4. First-aid measures

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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. 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. Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

- : SFC Caffeine in Methanol Standard (Solvent Blank) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (100.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (200.0 µg/mL) No known significant effects or critical hazards.

Inhalation

- : SFC Caffeine in Methanol Standard (Solvent Blank) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (100.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (200.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.

Skin contact

- : SFC Caffeine in Methanol Standard (Solvent Blank) Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.

Section 4. First-aid measures

Ingestion

SFC Caffeine in Methanol Standard (100.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
: SFC Caffeine in Methanol Standard (Solvent Blank)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

Eye contact

: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.

Inhalation

: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.

Skin contact

: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.

Section 4. First-aid measures

Ingestion	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.

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

Notes to physician	: SFC Caffeine in Methanol Standard (Solvent Blank)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific treatment.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific treatment.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific treatment.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific treatment.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific treatment.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific treatment.
Protection of first-aiders	: SFC Caffeine in Methanol Standard (Solvent Blank)	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.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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

Section 4. First-aid measures

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

before removing it, or wear gloves.

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.

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

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.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

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.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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

Extinguishing media

Suitable extinguishing media

: SFC Caffeine in Methanol
Standard (Solvent Blank)
SFC Caffeine in Methanol
Standard (2.0 µg/mL)
SFC Caffeine in Methanol
Standard (10.0 µg/mL)
SFC Caffeine in Methanol
Standard (50.0 µg/mL)
SFC Caffeine in Methanol
Standard (100.0 µg/mL)
SFC Caffeine in Methanol
Standard (200.0 µg/mL)

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media

: SFC Caffeine in Methanol
Standard (Solvent Blank)
SFC Caffeine in Methanol
Standard (2.0 µg/mL)
SFC Caffeine in Methanol
Standard (10.0 µg/mL)
SFC Caffeine in Methanol
Standard (50.0 µg/mL)

Do not use water jet.

Do not use water jet.

Do not use water jet.

Do not use water jet.

Section 5. Fire-fighting measures

	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Do not use water jet.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Do not use water jet.
Specific hazards arising from the chemical	: SFC Caffeine in Methanol Standard (Solvent Blank)	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.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	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

Hazardous thermal decomposition products	: SFC Caffeine in Methanol Standard (Solvent Blank)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Decomposition products may include the following materials: carbon dioxide carbon monoxide Formaldehyde.
Special protective actions for fire-fighters	: SFC Caffeine in Methanol Standard (Solvent Blank)	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.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	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

Section 5. Fire-fighting measures

	SFC Caffeine in Methanol Standard (200.0 µg/mL)	area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: SFC Caffeine in Methanol Standard (Solvent Blank)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	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

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: SFC Caffeine in Methanol Standard (Solvent Blank)	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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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

Section 6. Accidental release measures

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : SFC Caffeine in Methanol
Standard (Solvent Blank)

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".

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

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".

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

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".

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

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".

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

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".

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions	: SFC Caffeine in Methanol Standard (Solvent Blank)	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).
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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).
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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).
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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).
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	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).
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	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).

Methods and materials for containment and cleaning up

Methods for cleaning up	: SFC Caffeine in Methanol Standard (Solvent Blank)	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.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

waste disposal container. Dispose of via a licensed waste disposal contractor.

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.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

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

Precautions for safe handling

Protective measures

: SFC Caffeine in Methanol
Standard (Solvent Blank)

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

SFC Caffeine in Methanol
Standard (2.0 µg/mL)

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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

Section 7. Handling and storage

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

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.

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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

Advice on general occupational hygiene

: SFC Caffeine in Methanol Standard (Solvent Blank)

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.

SFC Caffeine in Methanol Standard (2.0 µg/mL)

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.

SFC Caffeine in Methanol Standard (10.0 µg/mL)

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.

SFC Caffeine in Methanol Standard (50.0 µg/mL)

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.

SFC Caffeine in Methanol Standard (100.0 µg/mL)

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.

SFC Caffeine in Methanol Standard (200.0 µg/mL)

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.

Conditions for safe storage, including any incompatibilities

: SFC Caffeine in Methanol Standard (Solvent Blank)

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SFC Caffeine in Methanol Standard (2.0 µg/mL)

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local

Section 7. Handling and storage

SFC Caffeine in Methanol
Standard (10.0 µg/mL)

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

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SFC Caffeine in Methanol
Standard (50.0 µg/mL)

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SFC Caffeine in Methanol
Standard (100.0 µg/mL)

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SFC Caffeine in Methanol
Standard (200.0 µg/mL)

Store between the following temperatures: 18 to 25°C (64.4 to 77°F). Store in accordance with local

Section 7. Handling and storage

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

Section 8. Exposure controls/personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. OEL: 262 mg/m ³ 8 hours. OEL: 200 ppm 8 hours. OEL: 250 ppm 15 minutes. OEL: 328 mg/m ³ 15 minutes. CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Quebec Provincial (Canada, 6/2022). Absorbed through skin. TWA _{EV} : 200 ppm 8 hours. TWA _{EV} : 262 mg/m ³ 8 hours. STEV: 250 ppm 15 minutes. STEV: 328 mg/m ³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours.
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. OEL: 262 mg/m ³ 8 hours. OEL: 200 ppm 8 hours. OEL: 250 ppm 15 minutes. OEL: 328 mg/m ³ 15 minutes. CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin. TWA: 200 ppm 8 hours. STEL: 250 ppm 15 minutes. CA Ontario Provincial (Canada, 6/2019).

Section 8. Exposure controls/personal protection

SFC Caffeine in Methanol Standard (10.0 µg/mL)
Methanol

Absorbed through skin.

TWA: 200 ppm 8 hours.

STEL: 250 ppm 15 minutes.

CA Quebec Provincial (Canada, 6/2022).

Absorbed through skin.

TWAEV: 200 ppm 8 hours.

TWAEV: 262 mg/m³ 8 hours.

STEV: 250 ppm 15 minutes.

STEV: 328 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.

STEL: 250 ppm 15 minutes.

TWA: 200 ppm 8 hours.

CA Alberta Provincial (Canada, 6/2018).

Absorbed through skin.

OEL: 262 mg/m³ 8 hours.

OEL: 200 ppm 8 hours.

OEL: 250 ppm 15 minutes.

OEL: 328 mg/m³ 15 minutes.

CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin.

TWA: 200 ppm 8 hours.

STEL: 250 ppm 15 minutes.

CA Ontario Provincial (Canada, 6/2019).

Absorbed through skin.

TWA: 200 ppm 8 hours.

STEL: 250 ppm 15 minutes.

CA Quebec Provincial (Canada, 6/2022).

Absorbed through skin.

TWAEV: 200 ppm 8 hours.

TWAEV: 262 mg/m³ 8 hours.

STEV: 250 ppm 15 minutes.

STEV: 328 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.

STEL: 250 ppm 15 minutes.

TWA: 200 ppm 8 hours.

SFC Caffeine in Methanol Standard (50.0 µg/mL)
Methanol

CA Alberta Provincial (Canada, 6/2018).

Absorbed through skin.

OEL: 262 mg/m³ 8 hours.

OEL: 200 ppm 8 hours.

OEL: 250 ppm 15 minutes.

OEL: 328 mg/m³ 15 minutes.

CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin.

TWA: 200 ppm 8 hours.

STEL: 250 ppm 15 minutes.

CA Ontario Provincial (Canada, 6/2019).

Absorbed through skin.

TWA: 200 ppm 8 hours.

STEL: 250 ppm 15 minutes.

CA Quebec Provincial (Canada, 6/2022).

Absorbed through skin.

Section 8. Exposure controls/personal protection

SFC Caffeine in Methanol Standard (100.0 µg/mL)
Methanol

TWAEV: 200 ppm 8 hours.
TWAEV: 262 mg/m³ 8 hours.
STEV: 250 ppm 15 minutes.
STEV: 328 mg/m³ 15 minutes.
CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.
STEL: 250 ppm 15 minutes.
TWA: 200 ppm 8 hours.

CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.

OEL: 262 mg/m³ 8 hours.
OEL: 200 ppm 8 hours.
OEL: 250 ppm 15 minutes.
OEL: 328 mg/m³ 15 minutes.

CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin.

TWA: 200 ppm 8 hours.
STEL: 250 ppm 15 minutes.

CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.

TWA: 200 ppm 8 hours.
STEL: 250 ppm 15 minutes.

CA Quebec Provincial (Canada, 6/2022). Absorbed through skin.

TWAEV: 200 ppm 8 hours.
TWAEV: 262 mg/m³ 8 hours.
STEV: 250 ppm 15 minutes.
STEV: 328 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.

STEL: 250 ppm 15 minutes.
TWA: 200 ppm 8 hours.

SFC Caffeine in Methanol Standard (200.0 µg/mL)
Methanol

CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.

OEL: 262 mg/m³ 8 hours.
OEL: 200 ppm 8 hours.
OEL: 250 ppm 15 minutes.
OEL: 328 mg/m³ 15 minutes.

CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin.

TWA: 200 ppm 8 hours.
STEL: 250 ppm 15 minutes.

CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.

TWA: 200 ppm 8 hours.
STEL: 250 ppm 15 minutes.

CA Quebec Provincial (Canada, 6/2022). Absorbed through skin.

TWAEV: 200 ppm 8 hours.
TWAEV: 262 mg/m³ 8 hours.
STEV: 250 ppm 15 minutes.
STEV: 328 mg/m³ 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.

Section 8. Exposure controls/personal protection

STEL: 250 ppm 15 minutes.
TWA: 200 ppm 8 hours.

Biological exposure indices

No exposure indices known.

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: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

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

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

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	: SFC Caffeine in Methanol Standard (Solvent Blank)	Liquid. [Clear.]
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Liquid.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Liquid.
Color	: SFC Caffeine in Methanol Standard (Solvent Blank)	Colorless.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Colorless.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Colorless.
Odor	: SFC Caffeine in Methanol Standard (Solvent Blank)	Characteristic.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
Odor threshold	: SFC Caffeine in Methanol Standard (Solvent Blank)	Not available.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.

pH :

Section 9. Physical and chemical properties and safety characteristics

	SFC Caffeine in Methanol Standard (Solvent Blank)	Not available.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
Melting point/freezing point	SFC Caffeine in Methanol Standard (Solvent Blank)	-98°C (-144.4°F)
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	-98°C (-144.4°F)
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	-98°C (-144.4°F)
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	-98°C (-144.4°F)
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	-98°C (-144.4°F)
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	-98°C (-144.4°F)
Boiling point, initial boiling point, and boiling range	SFC Caffeine in Methanol Standard (Solvent Blank)	64.8°C (148.6°F)
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	64.8°C (148.6°F)
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	64.8°C (148.6°F)
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	64.8°C (148.6°F)
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	64.8°C (148.6°F)
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	64.8°C (148.6°F)
Flash point	SFC Caffeine in Methanol Standard (Solvent Blank)	Closed cup: 11.1°C (52°F) [Abel-Pensky]
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Closed cup: 11.1°C (52°F)
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Closed cup: 11.1°C (52°F)
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Closed cup: 11.1°C (52°F)
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Closed cup: 11.1°C (52°F)
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Closed cup: 11.1°C (52°F)
Evaporation rate	SFC Caffeine in Methanol Standard (Solvent Blank)	2.1 (butyl acetate = 1)
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.

Section 9. Physical and chemical properties and safety characteristics

	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
Flammability	: SFC Caffeine in Methanol Standard (Solvent Blank)	Not applicable.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not applicable.
Lower and upper explosion limit/flammability limit	: SFC Caffeine in Methanol Standard (Solvent Blank)	Lower: 6.7%
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Upper: 36% Lower: 6.7%
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Upper: 36% Lower: 6.7%
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Upper: 36% Lower: 6.7%
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Upper: 36% Lower: 6.7%
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Upper: 36% Lower: 6.7%
		Upper: 36%
Vapor pressure	: SFC Caffeine in Methanol Standard (Solvent Blank)	13.3 kPa (100 mm Hg)
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	13.3 kPa (100 mm Hg)
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	13.3 kPa (100 mm Hg)
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	13.3 kPa (100 mm Hg)
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	13.3 kPa (100 mm Hg)
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	13.3 kPa (100 mm Hg)
Relative vapor density	: SFC Caffeine in Methanol Standard (Solvent Blank)	1.1 [Air = 1]
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	1.1 [Air = 1]
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	1.1 [Air = 1]
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	1.1 [Air = 1]
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	1.1 [Air = 1]
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	1.1 [Air = 1]

Section 9. Physical and chemical properties and safety characteristics

Relative density	: SFC Caffeine in Methanol Standard (Solvent Blank)	0.791
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	0.791
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	0.791
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	0.791
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	0.791
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	0.791

Solubility(ies)	: Media	Result
	SFC Caffeine in Methanol Standard (Solvent Blank)	
	water	Soluble
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	
	water	Soluble
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	
	water	Soluble
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	
	water	Soluble
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	
	water	Soluble
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	
	water	Soluble

Partition coefficient: n-octanol/water	: SFC Caffeine in Methanol Standard (Solvent Blank)	-0.77
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not applicable.

Auto-ignition temperature	: SFC Caffeine in Methanol Standard (Solvent Blank)	385°C (725°F) [DIN 51794]
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	385°C (725°F)
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	385°C (725°F)
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	385°C (725°F)
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	385°C (725°F)
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	385°C (725°F)

Section 9. Physical and chemical properties and safety characteristics

Decomposition temperature	SFC Caffeine in Methanol Standard (Solvent Blank)	Not available.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
Viscosity	SFC Caffeine in Methanol Standard (Solvent Blank)	Dynamic: 0.54 to 0.59 mPa·s (0.54 to 0.59 cP)
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
Particle characteristics		
Median particle size	SFC Caffeine in Methanol Standard (Solvent Blank)	Not applicable.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not applicable.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not applicable.

Section 10. Stability and reactivity

Reactivity	SFC Caffeine in Methanol Standard (Solvent Blank)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific test data related to reactivity available for this product or its ingredients.

Section 10. Stability and reactivity

Chemical stability	: SFC Caffeine in Methanol Standard (Solvent Blank)	The product is stable.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	The product is stable.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	The product is stable.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	The product is stable.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	The product is stable.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	The product is stable.
Possibility of hazardous reactions	: SFC Caffeine in Methanol Standard (Solvent Blank)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Under normal conditions of storage and use, hazardous reactions will not occur.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: SFC Caffeine in Methanol Standard (Solvent Blank)	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.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	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.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

Section 10. Stability and reactivity

Incompatible materials	: SFC Caffeine in Methanol Standard (Solvent Blank)	Reactive or incompatible with the following materials: oxidizing materials
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Reactive or incompatible with the following materials: oxidizing materials
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Reactive or incompatible with the following materials: oxidizing materials
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Reactive or incompatible with the following materials: oxidizing materials
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Reactive or incompatible with the following materials: oxidizing materials
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: SFC Caffeine in Methanol Standard (Solvent Blank)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours

Section 11. Toxicological information

SFC Caffeine in Methanol Standard (10.0 µg/mL) Methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
SFC Caffeine in Methanol Standard (10.0 µg/mL)					

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Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	Category 1	-	central nervous system (CNS), optic nerve
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	Category 1	-	central nervous system (CNS), optic nerve
SFC Caffeine in Methanol Standard (10.0 µg/mL) Methanol	Category 1	-	central nervous system (CNS),

Section 11. Toxicological information

SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	Category 1	-	optic nerve central nervous system (CNS), optic nerve
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	Category 1	-	central nervous system (CNS), optic nerve
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	Category 1	-	central nervous system (CNS), optic nerve

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

- : SFC Caffeine in Methanol Standard (Solvent Blank) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- SFC Caffeine in Methanol Standard (100.0 µg/mL) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- SFC Caffeine in Methanol Standard (200.0 µg/mL) Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact

- : SFC Caffeine in Methanol Standard (Solvent Blank) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (100.0 µg/mL) No known significant effects or critical hazards.
- SFC Caffeine in Methanol Standard (200.0 µg/mL) No known significant effects or critical hazards.

Inhalation

- : SFC Caffeine in Methanol Standard (Solvent Blank) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (2.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (10.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (50.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- SFC Caffeine in Methanol Standard (100.0 µg/mL) Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.

Section 11. Toxicological information

	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
Skin contact	: SFC Caffeine in Methanol Standard (Solvent Blank)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
Ingestion	: SFC Caffeine in Methanol Standard (Solvent Blank)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.
Inhalation	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.

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Skin contact	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific data.
Ingestion	: SFC Caffeine in Methanol Standard (Solvent Blank)	No specific data.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No specific data.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	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

General	: SFC Caffeine in Methanol Standard (Solvent Blank)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	No known significant effects or critical hazards.
Carcinogenicity	: SFC Caffeine in Methanol Standard (Solvent Blank)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	No known significant effects or critical hazards.
	SFC Caffeine in Methanol	No known significant effects or critical hazards.

Section 11. Toxicological information

	Standard (100.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (200.0 µg/mL)	
Mutagenicity	: SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (Solvent Blank)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (2.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (10.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (50.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (100.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (200.0 µg/mL)	
Reproductive toxicity	: SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (Solvent Blank)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (2.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (10.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (50.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (100.0 µg/mL)	
	SFC Caffeine in Methanol	No known significant effects or critical hazards.
	Standard (200.0 µg/mL)	

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
SFC Caffeine in Methanol Standard (Solvent Blank)					
Methanol	100	300	N/A	3	N/A
SFC Caffeine in Methanol Standard (2.0 µg/mL)					
SFC Caffeine in Methanol Standard (2.0 µg/mL)	100.0	300.0	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A
SFC Caffeine in Methanol Standard (10.0 µg/mL)					
SFC Caffeine in Methanol Standard (10.0 µg/mL)	100.0	300.0	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A
SFC Caffeine in Methanol Standard (50.0 µg/mL)					
SFC Caffeine in Methanol Standard (50.0 µg/mL)	100.0	300.0	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A
SFC Caffeine in Methanol Standard (100.0 µg/mL)					
SFC Caffeine in Methanol Standard (100.0 µg/mL)	100.0	300.0	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A
SFC Caffeine in Methanol Standard (200.0 µg/mL)					

Section 11. Toxicological information

SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	100.0 100	300.1 300	N/A N/A	3.0 3	N/A N/A
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Other information

SFC Caffeine in Methanol Standard (Solvent Blank)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Repeated exposure may cause skin dryness or cracking.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	Acute EC50 2736 mg/l Marine water Acute LC50 2500000 µg/l Marine water Acute LC50 3289 mg/l Fresh water Acute LC50 290 mg/l Fresh water Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i> Crustaceans - <i>Crangon crangon</i> - Adult Daphnia - <i>Daphnia magna</i> - Neonate Fish - <i>Danio rerio</i> - Egg Algae - <i>Ulva pertusa</i>	96 hours 48 hours 48 hours 96 hours 96 hours
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	Acute EC50 2736 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours

Section 12. Ecological information

SFC Caffeine in Methanol Standard (10.0 µg/mL) Methanol	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	Acute EC50 2736 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 2736 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute EC50 2736 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - <i>Danio rerio</i> - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - <i>Ulva pertusa</i>	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	-	-	Readily
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	-	-	Readily

Section 12. Ecological information

SFC Caffeine in Methanol Standard (10.0 µg/mL) Methanol	-	-	Readily
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	-	-	Readily
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	-	-	Readily
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	-0.77	<10	Low
SFC Caffeine in Methanol Standard (2.0 µg/mL) Methanol	-0.77	<10	Low
SFC Caffeine in Methanol Standard (10.0 µg/mL) Methanol	-0.77	<10	Low
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	-0.77	<10	Low
SFC Caffeine in Methanol Standard (100.0 µg/mL) Methanol	-0.77	<10	Low
SFC Caffeine in Methanol Standard (200.0 µg/mL) Methanol	-0.77	<10	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.




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

Section 13. Disposal considerations

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.

Section 14. Transport information

	TDG Classification	IMDG	IATA
UN number	UN1230	UN1230	UN1230
UN proper shipping name	METHANOL solution	METHANOL solution	Methanol solution
Transport hazard class(es)	3 (6.1) 	3 (6.1) 	3 (6.1) 
Packing group	II	II	II
Environmental hazards	No.	No.	No.

Proof of classification statement

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.26-2.36 (Class 6).

Additional information

Remarks: Excepted Quantity

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.26-2.36 (Class 6).

Explosive Limit and Limited Quantity Index 1

Passenger Carrying Road or Rail Index 1

Special provisions 43

IMDG

: **Emergency schedules** F-E, S-D

Special provisions 279

IATA

: **Quantity limitation** Passenger and Cargo Aircraft: 1 L. Packaging instructions: 352. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.

Special provisions A113

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.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : The following components are listed: methanol

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada : All components are listed or exempted.

United States : All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 02/01/2024

Date of previous issue : 02/26/2021

Version : 6

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

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
SFC Caffeine in Methanol Standard (Solvent Blank) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Expert judgment Expert judgment On basis of test data Expert judgment
SFC Caffeine in Methanol Standard (2.0 µg/mL) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method
SFC Caffeine in Methanol Standard (10.0 µg/mL) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method
SFC Caffeine in Methanol Standard (50.0 µg/mL) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method
SFC Caffeine in Methanol Standard (100.0 µg/mL) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method
SFC Caffeine in Methanol Standard (200.0 µg/mL) FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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