SAFETY DATA SHEET

Agilent Technologies

SFC Caffeine in Methanol Standard, Part Number 5190-0552

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

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

CAS number :

SFC Caffeine in Methanol Standard (Solvent Blank)	67-56-1
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.

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

1.2 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

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition :

SFC Caffeine in Methanol Standard (Solvent Blank)	Mono-constituent 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

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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
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

SECTION 2: Hazards identification

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

SFC Caffeine in Methanol Standard (Solvent Blank)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards 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)	Danger
SFC Caffeine in Methanol Standard (2.0 µg/mL)	Danger
SFC Caffeine in Methanol Standard (10.0 µg/mL)	Danger
SFC Caffeine in Methanol Standard (50.0 µg/mL)	Danger
SFC Caffeine in Methanol Standard (100.0 µg/mL)	Danger
SFC Caffeine in Methanol Standard (200.0 µg/mL)	Danger

Hazard statements :

SFC Caffeine in Methanol Standard (Solvent Blank)	H225 - Highly flammable liquid and vapour. H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled. H370 - Causes damage to organs. (central nervous system (CNS), optic nerve)
SFC Caffeine in Methanol Standard (2.0 µg/mL)	H225 - Highly flammable liquid and vapour. H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled. H370 - Causes damage to organs.
SFC Caffeine in Methanol Standard (10.0	H225 - Highly flammable liquid and vapour.

SECTION 2: Hazards identification

	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 vapour.
	SFC Caffeine in Methanol Standard (50.0 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 vapour.
	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 vapour.
	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.

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 vapour.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	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 vapour.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	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 vapour.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	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 vapour.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	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 vapour.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	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 vapour.

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Response	:	SFC Caffeine in Methanol Standard (Solvent Blank)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Storage	:	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.
Disposal	:	SFC Caffeine in Methanol Standard (Solvent Blank)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

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		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.
Hazardous ingredients	:	SFC Caffeine in Methanol Standard (2.0 µg/mL)	methanol
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	methanol
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	methanol
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	methanol
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	methanol
Supplemental label elements	:	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.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	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.

Special packaging requirements

Tactile warning of danger	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Not applicable.
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	Not applicable.
		SFC Caffeine in	Not applicable.

SECTION 2: Hazards identification

Methanol Standard (10.0 µg/mL)	
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.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII :

PBT	P	B	T	vPvB	vP	vB
SFC Caffeine in Methanol Standard (Solvent Blank)						
No	No	No	No	No	No	No

SFC Caffeine in Methanol Standard (2.0 µg/mL)	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

3.1 Substances : SFC Caffeine in Methanol Standard (Solvent Blank) — Mono-constituent 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

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
SFC Caffeine in Methanol Standard (Solvent Blank)					
methanol	EC: 200-659-6 CAS: 67-56-1	100	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1]
SFC Caffeine in Methanol Standard (2.0 µg/mL)					
methanol	EC: 200-659-6 CAS: 67-56-1	≥90	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
SFC Caffeine in Methanol Standard (10.0 µg/mL)					
methanol	EC: 200-659-6 CAS: 67-56-1	≥90	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
SFC Caffeine in Methanol Standard (50.0 µg/mL)					

SECTION 3: Composition/information on ingredients

methanol **SFC Caffeine in Methanol Standard (100.0 µg/mL)**	EC: 200-659-6 CAS: 67-56-1	≥90	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
methanol **SFC Caffeine in Methanol Standard (200.0 µg/mL)**	EC: 200-659-6 CAS: 67-56-1	≥90	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]
methanol	EC: 200-659-6 CAS: 67-56-1	≥90	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 (central nervous system (CNS), optic nerve) **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l STOT SE 1, H370: C ≥ 10% STOT SE 2, H371: 3% ≤ C < 10%	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

SFC Caffeine in Methanol Standard (Solvent Blank)	[1] Constituent
SFC Caffeine in Methanol Standard (2.0 µg/mL)	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
SFC Caffeine in Methanol Standard (10.0 µg/mL)	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
SFC Caffeine in Methanol Standard (50.0 µg/mL)	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
SFC Caffeine in Methanol Standard (100.0 µg/mL)	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit
SFC Caffeine in Methanol Standard (200.0 µg/mL)	[1] Substance classified with a health or environmental hazard [2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of 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 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,

SECTION 4: First aid measures

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

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		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.
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 small quantities of water to drink.

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		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 (200.0 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.
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 before removing it, or wear gloves.
	SFC Caffeine in Methanol Standard (10.0 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 (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.

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4.2 Most important symptoms and effects, both 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.
		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.

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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.

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	No specific data.

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		µg/mL)	
		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.

4.3 Indication of any immediate medical attention and special treatment needed

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	No specific treatment.

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(100.0 µg/mL)	
SFC Caffeine in Methanol Standard (200.0 µg/mL)	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: SFC Caffeine in Methanol Standard (Solvent Blank)	Use dry chemical, CO_2, water spray (fog) or foam.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Use dry chemical, CO_2, water spray (fog) or foam.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Use dry chemical, CO_2, water spray (fog) or foam.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Use dry chemical, CO_2, water spray (fog) or foam.
	SFC Caffeine in Methanol Standard (100.0 µg/mL)	Use dry chemical, CO_2, water spray (fog) or foam.
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	: SFC Caffeine in Methanol Standard (Solvent Blank)	Do not use water jet.
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Do not use water jet.
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Do not use water jet.
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Do not use water jet.
	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.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: SFC Caffeine in Methanol Standard (Solvent Blank)	Highly flammable liquid and vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours 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 vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours 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 vapour. 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,

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		with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours 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 vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours 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 vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours 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 vapour. 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 vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
Hazardous combustion 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.

5.3 Advice for firefighters

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Special precautions 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 area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	SFC Caffeine in Methanol Standard (200.0 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.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves)

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conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour 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 through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
		SFC Caffeine in Methanol Standard (50.0 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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For emergency responders	:	SFC Caffeine in Methanol Standard (Solvent Blank)	If specialised 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 specialised 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 specialised 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 specialised 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 specialised 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 specialised 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".
6.2 Environmental precautions	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Avoid dispersal of spilt 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 spilt 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 spilt 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 spilt 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 spilt 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 spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material 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.

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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.
SFC Caffeine in Methanol Standard (100.0 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 (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.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 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 vapour 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 vapour 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	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not

SECTION 7: Handling and storage

µg/mL)	breathe vapour 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 (50.0 µg/mL)	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour 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 vapour 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 vapour 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.

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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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	:	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 oxidising 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 unlabelled 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 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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for

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	incompatible materials before handling or use.
SFC Caffeine in Methanol Standard (10.0 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 oxidising 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 unlabelled 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 oxidising 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 unlabelled 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 oxidising 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 unlabelled 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 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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Named substances

Name	Notification and MAPP threshold	Safety report threshold
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	500 tonne	5000 tonne

Danger criteria

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Category	Notification and MAPP threshold	Safety report threshold
SFC Caffeine in Methanol Standard (2.0 µg/mL)		
H2	50 tonne	200 tonne
H3	50 tonne	200 tonne
P5c	5000 tonne	50000 tonne
SFC Caffeine in Methanol Standard (10.0 µg/mL)		
H2	50 tonne	200 tonne
H3	50 tonne	200 tonne
P5c	5000 tonne	50000 tonne
SFC Caffeine in Methanol Standard (50.0 µg/mL)		
H2	50 tonne	200 tonne
H3	50 tonne	200 tonne
P5c	5000 tonne	50000 tonne
SFC Caffeine in Methanol Standard (100.0 µg/mL)		
H2	50 tonne	200 tonne
H3	50 tonne	200 tonne
P5c	5000 tonne	50000 tonne
SFC Caffeine in Methanol Standard (200.0 µg/mL)		
H2	50 tonne	200 tonne
H3	50 tonne	200 tonne
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Industrial applications, Professional applications.
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	Industrial applications, Professional applications.
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	Industrial applications, Professional applications.
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	Industrial applications, Professional applications.
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	Industrial applications, Professional applications.
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	Industrial applications, Professional applications.
Industrial sector specific solutions	:	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	Not available.

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Methanol Standard
(200.0 µg/mL)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
SFC Caffeine in Methanol Standard (Solvent Blank)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	
Methanol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values** OELV: 200 ppm 8 hours. OELV: 260 mg/m³ 8 hours.

Biological exposure indices

Product/ingredient name	Exposure indices
SFC Caffeine in Methanol Standard (Solvent Blank)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
SFC Caffeine in Methanol Standard (2.0 µg/	

SECTION 8: Exposure controls/personal protection

mL)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	
Methanol	**NAOSH (Ireland, 1/2011)** BMGV: 15 mg/l, methanol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
SFC Caffeine in Methanol Standard (Solvent Blank)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic
SFC Caffeine in Methanol Standard (2.0 µg/mL)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic
SFC Caffeine in Methanol Standard (10.0 µg/mL)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic
SFC Caffeine in Methanol Standard (50.0 µg/mL)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic
SFC Caffeine in Methanol Standard (100.0 µg/mL)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local

SECTION 8: Exposure controls/personal protection

	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic
SFC Caffeine in Methanol Standard (200.0 µg/mL)					
Methanol	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

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

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.

SECTION 8: Exposure controls/personal protection

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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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.

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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

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.

SECTION 9: Physical and chemical properties

Colour	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Colourless.
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	Colourless.
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	Colourless.
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	Colourless.
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	Colourless.
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	Colourless.
Odour	:	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.
Odour 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.
Melting point/freezing point	:	SFC Caffeine in Methanol Standard (Solvent Blank)	-98°C
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	-98°C
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	-98°C

SECTION 9: Physical and chemical properties

		SFC Caffeine in Methanol Standard (50.0 µg/mL)	-98°C
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	-98°C
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	-98°C
Initial boiling point and boiling range	:	SFC Caffeine in Methanol Standard (Solvent Blank)	64.8°C
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	64.8°C
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	64.8°C
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	64.8°C
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	64.8°C
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	64.8°C
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.
Upper/lower flammability or explosive limits	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Lower: 6.7% Upper: 36%
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	Lower: 6.7% Upper: 36%
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	Lower: 6.7% Upper: 36%
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	Lower: 6.7% Upper: 36%
		SFC Caffeine in Methanol Standard	Lower: 6.7%

SECTION 9: Physical and chemical properties

		(100.0 µg/mL)	
			Upper: 36%
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	Lower: 6.7%
			Upper: 36%
Flash point	:	SFC Caffeine in Methanol Standard (Solvent Blank)	Closed cup: 11.1°C [Abel-Pensky]
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	Closed cup: 11.1°C
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	Closed cup: 11.1°C
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	Closed cup: 11.1°C
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	Closed cup: 11.1°C
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	Closed cup: 11.1°C
Auto-ignition temperature	:	SFC Caffeine in Methanol Standard (Solvent Blank)	385°C [DIN 51794]
		SFC Caffeine in Methanol Standard (2.0 µg/mL)	385°C
		SFC Caffeine in Methanol Standard (10.0 µg/mL)	385°C
		SFC Caffeine in Methanol Standard (50.0 µg/mL)	385°C
		SFC Caffeine in Methanol Standard (100.0 µg/mL)	385°C
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	385°C
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.

SECTION 9: Physical and chemical properties

pH :

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.

Viscosity :

SFC Caffeine in Methanol Standard (Solvent Blank)	Dynamic: 0.54 to 0.59 mPa·s
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.

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

SECTION 9: Physical and chemical properties

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.
Vapour 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)
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.
		SFC Caffeine in Methanol Standard (200.0 µg/mL)	Not available.
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

SECTION 9: Physical and chemical properties

		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
Vapour 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]
Explosive properties	:	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.
Oxidising properties	:	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.

SECTION 9: Physical and chemical properties

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.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 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.
10.2 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.

SECTION 10: Stability and reactivity

10.3 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.
10.4 Conditions to avoid	: SFC Caffeine in Methanol Standard (Solvent Blank)	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour 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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
10.5 Incompatible materials	: SFC Caffeine in Methanol Standard (Solvent Blank)	Reactive or incompatible with the following materials: oxidising materials
	SFC Caffeine in Methanol Standard (2.0 µg/mL)	Reactive or incompatible with the following materials: oxidising materials
	SFC Caffeine in Methanol Standard (10.0 µg/mL)	Reactive or incompatible with the following materials: oxidising materials
	SFC Caffeine in Methanol Standard (50.0 µg/mL)	Reactive or incompatible with the following materials: oxidising materials
	SFC Caffeine in Methanol Standard	Reactive or incompatible with the following materials:

SECTION 10: Stability and reactivity

	(100.0 µg/mL)	oxidising materials
	SFC Caffeine in Methanol Standard (200.0 µg/mL)	Reactive or incompatible with the following materials: oxidising materials

10.6 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

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SFC Caffeine in Methanol Standard (Solvent Blank)				
Methanol	LC50 Inhalation Vapour	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapour	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 Vapour	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
SFC Caffeine in Methanol Standard (10.0 µg/mL)				
Methanol	LC50 Inhalation Vapour	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	83.84 mg/l	4 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
SFC Caffeine in Methanol Standard (50.0 µg/mL)				
Methanol	LC50 Inhalation Vapour	Rat	189.95 mg/l	1 hours
	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours

SECTION 11: Toxicological information

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

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (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)					
SFC Caffeine in Methanol Standard (200.0 µg/mL)	100.0	300.1	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

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)					
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	-

Sensitiser

Conclusion/Summary : 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)

SECTION 11: Toxicological information

Product/ingredient 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), optic nerve
SFC Caffeine in Methanol Standard (50.0 µg/mL) Methanol	Category 1	-	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 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

SECTION 11: Toxicological information

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.
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.
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.
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.

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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.

Symptoms related to the physical, chemical and toxicological characteristics

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.
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.
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	No specific data.

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		(200.0 µg/mL)	
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.

Delayed and immediate effects as well as 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

Conclusion/Summary : Not available.

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	No known significant effects or critical hazards.

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		Methanol Standard (50.0 µg/mL)	
		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.
Mutagenicity	:	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.
Reproductive toxicity	:	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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 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	Adverse symptoms may include the following: blurred or double vision, Eye

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Standard (50.0 µg/mL)	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

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SFC Caffeine in Methanol Standard (Solvent Blank)			
Methanol	Acute EC50 2736 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - *Danio rerio* - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
SFC Caffeine in Methanol Standard (2.0 µg/mL)			
Methanol	Acute EC50 2736 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - *Danio rerio* - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
SFC Caffeine in Methanol Standard (10.0 µg/mL)			
Methanol	Acute EC50 2736 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - *Danio rerio* - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
SFC Caffeine in Methanol Standard (50.0 µg/mL)			
Methanol	Acute EC50 2736 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - *Danio rerio* - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
SFC Caffeine in Methanol Standard (100.0 µg/mL)			
Methanol	Acute EC50 2736 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - *Daphnia magna* -	48 hours

SECTION 12: Ecological information

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

12.2 Persistence and degradability

Not available.

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
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

12.3 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

SECTION 12: Ecological information

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

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol	No	No	No	No	No	No	No

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1230	UN1230	UN1230
14.2 UN proper shipping name	METHANOL solution	METHANOL solution	Methanol solution
14.3 Transport hazard class(es)	3 (6.1) 	3 (6.1) 	3 (6.1) 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.

Additional information

Remarks: Excepted Quantity

ADR/RID : **Hazard identification number** 336
Limited quantity 1 L
Special provisions 279
Tunnel code (D/E)

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

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

SECTION 15: Regulatory information

Product / Ingredient name	Identifiers	Designation [Usage]
SFC Caffeine in Methanol Standard (Solvent Blank)		
Methanol		3 69
SFC Caffeine in Methanol Standard (2.0 µg/mL)		
SFC Caffeine in Methanol Standard (2.0 µg/mL)		3
Methanol		69
SFC Caffeine in Methanol Standard (10.0 µg/mL)		
SFC Caffeine in Methanol Standard (10.0 µg/mL)		3
Methanol		69
SFC Caffeine in Methanol Standard (50.0 µg/mL)		
SFC Caffeine in Methanol Standard (50.0 µg/mL)		3
Methanol		69
SFC Caffeine in Methanol Standard (100.0 µg/mL)		
SFC Caffeine in Methanol Standard (100.0 µg/mL)		3
Methanol		69
SFC Caffeine in Methanol Standard (200.0 µg/mL)		
SFC Caffeine in Methanol Standard (200.0 µg/mL)		3
Methanol		69

Label	:	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.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

SECTION 15: Regulatory information

Name
SFC Caffeine in Methanol Standard (Solvent Blank) Methanol

Danger criteria

Category
SFC Caffeine in Methanol Standard (2.0 µg/mL) H2 H3 P5c **SFC Caffeine in Methanol Standard (10.0 µg/mL)** H2 H3 P5c **SFC Caffeine in Methanol Standard (50.0 µg/mL)** H2 H3 P5c **SFC Caffeine in Methanol Standard (100.0 µg/mL)** H2 H3 P5c **SFC Caffeine in Methanol Standard (200.0 µg/mL)** H2 H3 P5c

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

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

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

SECTION 15: Regulatory information

Thailand : All components are listed or exempted.

Turkey : All components are listed or exempted.

United States : All components are active or exempted.

Viet Nam : All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
SFC Caffeine in Methanol Standard (Solvent Blank)	
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Expert judgment
Acute Tox. 3, H311	Expert judgment
Acute Tox. 3, H331	On basis of test data
STOT SE 1, H370 (central nervous system (CNS), optic nerve)	Expert judgment
SFC Caffeine in Methanol Standard (2.0 µg/mL)	
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Calculation method
Acute Tox. 3, H311	Calculation method
Acute Tox. 3, H331	Calculation method
STOT SE 1, H370	Calculation method
SFC Caffeine in Methanol Standard (10.0 µg/mL)	
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Calculation method
Acute Tox. 3, H311	Calculation method
Acute Tox. 3, H331	Calculation method
STOT SE 1, H370	Calculation method
SFC Caffeine in Methanol Standard (50.0 µg/mL)	
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Calculation method
Acute Tox. 3, H311	Calculation method
Acute Tox. 3, H331	Calculation method
STOT SE 1, H370	Calculation method
SFC Caffeine in Methanol Standard (100.0 µg/mL)	
Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Calculation method
Acute Tox. 3, H311	Calculation method
Acute Tox. 3, H331	Calculation method
STOT SE 1, H370	Calculation method
SFC Caffeine in Methanol Standard (200.0 µg/mL)	

SECTION 16: Other information

Flam. Liq. 2, H225	On basis of test data
Acute Tox. 3, H301	Calculation method
Acute Tox. 3, H311	Calculation method
Acute Tox. 3, H331	Calculation method
STOT SE 1, H370	Calculation method

Full text of abbreviated H statements

SFC Caffeine in Methanol Standard (Solvent Blank)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
SFC Caffeine in Methanol Standard (2.0 µg/mL)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
SFC Caffeine in Methanol Standard (10.0 µg/mL)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
SFC Caffeine in Methanol Standard (50.0 µg/mL)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
SFC Caffeine in Methanol Standard (100.0 µg/mL)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
SFC Caffeine in Methanol Standard (200.0 µg/mL)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.

Full text of classifications [CLP/GHS]

SECTION 16: Other information

SFC Caffeine in Methanol Standard (Solvent Blank)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SFC Caffeine in Methanol Standard (2.0 µg/mL)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SFC Caffeine in Methanol Standard (10.0 µg/mL)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SFC Caffeine in Methanol Standard (50.0 µg/mL)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SFC Caffeine in Methanol Standard (100.0 µg/mL)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
SFC Caffeine in Methanol Standard (200.0 µg/mL)	
Acute Tox. 3	ACUTE TOXICITY - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

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Date of previous issue : No previous validation

Version : 1

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