

SAFETY DATA SHEET

RapidFire SAT Plate, Part Number G9203-60002

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

1.1 Product identifier

Product name	: RapidFire SAT Plate, Part Number G9203-60002	
Part No. (Kit)	: G9203-60002	
Part No.	: Sample 1	Not available.
	: Sample 2	Not available.
	: Sample 3	Not available.
	: Sample 4	Not available.

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

Identified uses	
Analytical chemistry.	
Sample 1	1.75 ml
Sample 2	1.75 ml
Sample 3	1.75 ml
Sample 4	1.75 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
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	: Sample 1	Mixture
	: Sample 2	Mixture
	: Sample 3	Mixture
	: Sample 4	Mixture

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

Sample 1

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Sample 2

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Sample 3

Date of issue/Date of revision : 03/12/2015

SECTION 2: Hazards identification

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Sample 4

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Classification according to Directive 1999/45/EC [DPD]

Sample 1	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Sample 2	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Sample 3	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Sample 4	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	:	Sample 1	F; R11 Xn; R20/21/22 Xi; R36
		Sample 2	F; R11 Xn; R20/21/22 Xi; R36
		Sample 3	F; R11 Xn; R20/21/22 Xi; R36
		Sample 4	F; R11 Xn; R20/21/22 Xi; R36

Physical/chemical hazards	:	Sample 1	Highly flammable.
		Sample 2	Highly flammable.
		Sample 3	Highly flammable.
		Sample 4	Highly flammable.

Human health hazards	:	Sample 1	Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.
		Sample 2	Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.
		Sample 3	Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.
		Sample 4	Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes.

Environmental hazards	:	<input checked="" type="checkbox"/> Sample 1	Not applicable.
		Sample 2	Not applicable.
		Sample 3	Not applicable.
		Sample 4	Not applicable.

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

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

2.2 Label elements

Hazard pictograms :



SECTION 2: Hazards identification

Signal word	: Sample 1 Sample 2 Sample 3 Sample 4	Danger Danger Danger Danger
Hazard statements	: Sample 1 Sample 2 Sample 3 Sample 4	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation. GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes serious eye irritation.
<u>Precautionary statements</u>		
Prevention	: Sample 1 Sample 2 Sample 3 Sample 4	P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

SECTION 2: Hazards identification

Response	: Sample 1	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	Sample 2	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	Sample 3	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	Sample 4	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage	: Sample 1 Sample 2 Sample 3 Sample 4	P235 - Keep cool. P235 - Keep cool. P235 - Keep cool. P235 - Keep cool.
Disposal	: Sample 1 Sample 2 Sample 3 Sample 4	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: Sample 1 Acetonitrile Sample 2 Acetonitrile Sample 3 Acetonitrile Sample 4 Acetonitrile	
Supplemental label elements	: Sample 1 Sample 2 Sample 3 Sample 4	Not applicable. Not applicable. Not applicable. Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.	
<u>Special packaging requirements</u>		
Tactile warning of danger	: Sample 1 Sample 2 Sample 3 Sample 4	Not applicable. Not applicable. Not applicable. Not applicable.

2.3 Other hazards

SECTION 2: Hazards identification

Other hazards which do not result in classification :

Sample 1	None known.
Sample 2	None known.
Sample 3	None known.
Sample 4	None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures :

Sample 1	Mixture
Sample 2	Mixture
Sample 3	Mixture
Sample 4	Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Sample 1 Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90	F; R11 Xn; R20/21/22 Xi; R36	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1] [2]
Sample 2 Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90	F; R11 Xn; R20/21/22 Xi; R36	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1] [2]
Sample 3 Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90	F; R11 Xn; R20/21/22 Xi; R36	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1] [2]
Sample 4 Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥90	F; R11 Xn; R20/21/22 Xi; R36 See Section 16 for the full text of the R-phrases declared above.	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 See Section 16 for the full text of the H statements declared above.	[1] [2]

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

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

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

SECTION 4: First aid measures**4.1 Description of first aid measures**

Eye contact	: Sample 1	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.
	Sample 2	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.
	Sample 3	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.
	Sample 4	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Sample 1	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 adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Sample 2	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 adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Sample 3	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 adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed

SECTION 4: First aid measures

Sample 4
 person may need to be kept under medical surveillance for 48 hours.
 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 adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

: Sample 1
 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 adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Sample 2
 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 adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Sample 3
 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 adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Sample 4
 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 adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Sample 1
 Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Sample 2
 Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities

SECTION 4: First aid measures

of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Sample 3

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

Sample 4

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

Protection of first-aiders : Sample 1

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.

Sample 2

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.

Sample 3

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.

Sample 4

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

SECTION 4: First aid measures

resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Sample 1	Causes serious eye irritation.
	Sample 2	Causes serious eye irritation.
	Sample 3	Causes serious eye irritation.
	Sample 4	Causes serious eye irritation.
Inhalation	: <input checked="" type="checkbox"/> Sample 1	Harmful if inhaled.
	Sample 2	Harmful if inhaled.
	Sample 3	Harmful if inhaled.
	Sample 4	Harmful if inhaled.
Skin contact	: Sample 1	Harmful in contact with skin.
	Sample 2	Harmful in contact with skin.
	Sample 3	Harmful in contact with skin.
	Sample 4	Harmful in contact with skin.
Ingestion	: <input checked="" type="checkbox"/> Sample 1	Harmful if swallowed.
	Sample 2	Harmful if swallowed.
	Sample 3	Harmful if swallowed.
	Sample 4	Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	: Sample 1	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 2	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 3	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 4	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.
Skin contact	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.
Ingestion	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Sample 1	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Sample 2	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Sample 3	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need

SECTION 4: First aid measures

	Sample 4	to be kept under medical surveillance for 48 hours. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: Sample 1	No specific treatment.
	Sample 2	No specific treatment.
	Sample 3	No specific treatment.
	Sample 4	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Sample 1	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Sample 2	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Sample 3	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Sample 4	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Sample 1	Do not use water jet.
	Sample 2	Do not use water jet.
	Sample 3	Do not use water jet.
	Sample 4	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Sample 1	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
	Sample 2	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
	Sample 3	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
	Sample 4	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Hazardous combustion products	: Sample 1	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides cyanides
	Sample 2	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides cyanides
	Sample 3	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides cyanides
	Sample 4	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides cyanides cyanides

SECTION 5: Firefighting measures**5.3 Advice for firefighters**

Special precautions for fire-fighters	: Sample 1	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.
	Sample 2	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.
	Sample 3	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.
	Sample 4	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	: Sample 1	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.
	Sample 2	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.
	Sample 3	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.
	Sample 4	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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	: Sample 1	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Sample 2	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard

SECTION 6: Accidental release measures

area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Sample 3
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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Sample 4
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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

: Sample 1
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".

Sample 2
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".

Sample 3
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".

Sample 4
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

: Sample 1
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).

Sample 2
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).

Sample 3
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).

Sample 4
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

SECTION 6: Accidental release measures

Methods for cleaning up	: Sample 1	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.
	Sample 2	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.
	Sample 3	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.
	Sample 4	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	: Sample 1	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Sample 2	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Sample 3	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and

SECTION 7: Handling and storage

clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Sample 4

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Sample 1

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.

Sample 2

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.

Sample 3

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.

Sample 4

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

: Sample 1

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

SECTION 7: Handling and storage

Sample 2	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Sample 3	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Sample 4	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Sample 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b C7b: Highly flammable (R11)	5000 5000	50000 50000
Sample 2 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b C7b: Highly flammable (R11)	5000 5000	50000 50000
Sample 3 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b C7b: Highly flammable (R11)	5000 5000	50000 50000
Sample 4 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b C7b: Highly flammable (R11)	5000 5000	50000 50000

7.3 Specific end use(s)

Recommendations	: Sample 1 Sample 2 Sample 3 Sample 4	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Sample 1 Sample 2 Sample 3 Sample 4	Not applicable. Not applicable. Not applicable. Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Sample 1 Acetonitrile	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 40 ppm 8 hours. TWA: 70 mg/m ³ 8 hours.
Sample 2 Acetonitrile	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 40 ppm 8 hours. TWA: 70 mg/m ³ 8 hours.
Sample 3 Acetonitrile	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 40 ppm 8 hours. TWA: 70 mg/m ³ 8 hours.
Sample 4 Acetonitrile	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 40 ppm 8 hours. TWA: 70 mg/m ³ 8 hours.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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

No DNELs available.

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.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

SECTION 8: Exposure controls/personal 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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- 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**9.1 Information on basic physical and chemical properties**Appearance

Physical state	: Sample 1	Liquid.
	Sample 2	Liquid.
	Sample 3	Liquid.
	Sample 4	Liquid.
Colour	: Sample 1	Not available.
	Sample 2	Not available.
	Sample 3	Not available.
	Sample 4	Not available.
Odour	: Sample 1	Not available.
	Sample 2	Not available.
	Sample 3	Not available.
	Sample 4	Not available.
Odour threshold	: Sample 1	Not available.
	Sample 2	Not available.
	Sample 3	Not available.
	Sample 4	Not available.
pH	: Sample 1	Not available.
	Sample 2	Not available.
	Sample 3	Not available.
	Sample 4	Not available.
Melting point/freezing point	: Sample 1	-46°C
	Sample 2	-46°C
	Sample 3	-46°C
	Sample 4	-46°C
Initial boiling point and boiling range	: Sample 1	82°C
	Sample 2	82°C
	Sample 3	82°C
	Sample 4	82°C
Flash point	: Sample 1	Closed cup: 12.8°C
	Sample 2	Closed cup: 12.8°C
	Sample 3	Closed cup: 12.8°C
	Sample 4	Closed cup: 12.8°C

SECTION 9: Physical and chemical properties

Evaporation rate	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Flammability (solid, gas)	:	<input checked="" type="checkbox"/> Sample 1	Not applicable.
		Sample 2	Not applicable.
		Sample 3	Not applicable.
		Sample 4	Not applicable.
Upper/lower flammability or explosive limits	:	Sample 1	Lower: 3% Upper: 16%
		Sample 2	Lower: 3% Upper: 16%
		Sample 3	Lower: 3% Upper: 16%
		Sample 4	Lower: 3% Upper: 16%
Vapour pressure	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Vapour density	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Relative density	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Solubility(ies)	:	Sample 1	Easily soluble in the following materials: cold water and hot water.
		Sample 2	Easily soluble in the following materials: cold water and hot water.
		Sample 3	Easily soluble in the following materials: cold water and hot water.
		Sample 4	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Auto-ignition temperature	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Decomposition temperature	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Viscosity	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Explosive properties	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Oxidising properties	:	<input checked="" type="checkbox"/> Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.

SECTION 9: Physical and chemical properties**9.2 Other information**

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Sample 1	No specific test data related to reactivity available for this product or its ingredients.
	Sample 2	No specific test data related to reactivity available for this product or its ingredients.
	Sample 3	No specific test data related to reactivity available for this product or its ingredients.
	Sample 4	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Sample 1	The product is stable.
	Sample 2	The product is stable.
	Sample 3	The product is stable.
	Sample 4	The product is stable.
10.3 Possibility of hazardous reactions	: Sample 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	Sample 2	Under normal conditions of storage and use, hazardous reactions will not occur.
	Sample 3	Under normal conditions of storage and use, hazardous reactions will not occur.
	Sample 4	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Sample 1	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.
	Sample 2	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.
	Sample 3	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.
	Sample 4	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.
10.5 Incompatible materials	: <input checked="" type="checkbox"/> Sample 1	Reactive or incompatible with the following materials: oxidizing materials
	Sample 2	Reactive or incompatible with the following materials: oxidizing materials
	Sample 3	Reactive or incompatible with the following materials: oxidizing materials
	Sample 4	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: Sample 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Sample 2	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Sample 3	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Sample 4	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
Sample 1 Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
Sample 2 Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
Sample 3 Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
Sample 4 Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -

Acute toxicity estimates

Route	ATE value
Sample 1 Oral Dermal Inhalation (vapours)	503 mg/kg 1106.7 mg/kg 11.07 mg/l
Sample 2 Oral Dermal Inhalation (vapours)	503 mg/kg 1106.7 mg/kg 11.07 mg/l
Sample 3 Oral Dermal Inhalation (vapours)	503 mg/kg 1106.7 mg/kg 11.07 mg/l
Sample 4 Oral Dermal Inhalation (vapours)	503.1 mg/kg 1106.8 mg/kg 11.07 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sample 1 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Sample 2 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Sample 3 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

SECTION 11: Toxicological information

Sample 4 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
	Skin - Mild irritant	Rabbit	-	microliters 500 milligrams	-

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure :

<input checked="" type="checkbox"/> Sample 1	Routes of entry anticipated: Oral, Dermal, Inhalation.
Sample 2	Routes of entry anticipated: Oral, Dermal, Inhalation.
Sample 3	Routes of entry anticipated: Oral, Dermal, Inhalation.
Sample 4	Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation	: <input checked="" type="checkbox"/> Sample 1	Harmful if inhaled.
	Sample 2	Harmful if inhaled.
	Sample 3	Harmful if inhaled.
	Sample 4	Harmful if inhaled.
Ingestion	: <input checked="" type="checkbox"/> Sample 1	Harmful if swallowed.
	Sample 2	Harmful if swallowed.
	Sample 3	Harmful if swallowed.
	Sample 4	Harmful if swallowed.
Skin contact	: Sample 1	Harmful in contact with skin.
	Sample 2	Harmful in contact with skin.
	Sample 3	Harmful in contact with skin.
	Sample 4	Harmful in contact with skin.
Eye contact	: Sample 1	Causes serious eye irritation.
	Sample 2	Causes serious eye irritation.
	Sample 3	Causes serious eye irritation.
	Sample 4	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.
Ingestion	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.
Skin contact	: Sample 1	No specific data.
	Sample 2	No specific data.
	Sample 3	No specific data.
	Sample 4	No specific data.

SECTION 11: Toxicological information

Eye contact	: Sample 1	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 2	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 3	Adverse symptoms may include the following: pain or irritation watering redness
	Sample 4	Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Sample 1 Sample 2 Sample 3 Sample 4	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Toxicokinetics

Absorption	: Sample 1 Sample 2 Sample 3 Sample 4	Not available. Not available. Not available. Not available.
-------------------	--	--

SECTION 11: Toxicological information

Distribution	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Metabolism	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Elimination	:	Sample 1	Not available.
		Sample 2	Not available.
		Sample 3	Not available.
		Sample 4	Not available.
Other information	:	Not available.	

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Sample 1 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Sample 2 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Sample 3 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Sample 4 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Sample 1 Acetonitrile	-	-	Readily
Sample 2 Acetonitrile	-	-	Readily
Sample 3 Acetonitrile	-	-	Readily

SECTION 12: Ecological information

Sample 4 Acetonitrile	-	-	Readily
---------------------------------	---	---	---------

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Sample 1 Acetonitrile	-0.34	-	low
Sample 2 Acetonitrile	-0.34	-	low
Sample 3 Acetonitrile	-0.34	-	low
Sample 4 Acetonitrile	-0.34	-	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

PBT : Not applicable.

vPvB : Not applicable.

12.6 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	UN1648	UN1648	UN1648
14.2 UN proper shipping name	ACETONITRILE solution	ACETONITRILE solution	Acetonitrile solution
14.3 Transport hazard class(es)	3 	3 	3 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.
Additional information	<p>Hazard identification number 33</p> <p>Limited quantity 1 L</p> <p>Tunnel code (D/E)</p>	<p>Emergency schedules (EmS) F-E, S-D</p>	<p>Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 353</p> <p>Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 364</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y341</p>

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 Annex II of MARPOL 73/78 and the IBC Code : 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 : Not applicable.

Other EU regulations

Europe inventory : Not determined.

SECTION 15: Regulatory information

Integrated pollution prevention and control list (IPPC) - Air : Listed

Integrated pollution prevention and control list (IPPC) - Water : Listed

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

Sample 1

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
C7b: Highly flammable (R11)

Sample 2

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
C7b: Highly flammable (R11)

Sample 3

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
C7b: Highly flammable (R11)

Sample 4

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
C7b: Highly flammable (R11)

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Japan : Not determined.

Malaysia : Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

United States : Not determined.

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]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

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

Classification	Justification
<p>Sample 1 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319</p>	<p>On basis of test data Calculation method Calculation method Calculation method Calculation method</p>
<p>Sample 2 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319</p>	<p>On basis of test data Calculation method Calculation method Calculation method Calculation method</p>
<p>Sample 3 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319</p>	<p>On basis of test data Calculation method Calculation method Calculation method Calculation method</p>
<p>Sample 4 Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319</p>	<p>On basis of test data Calculation method Calculation method Calculation method Calculation method</p>

Full text of abbreviated H statements

- Sample 1**
 H225 Highly flammable liquid and vapour.
 H302 (oral) Harmful if swallowed.
 H312 (dermal) Harmful in contact with skin.
 H319 Causes serious eye irritation.
 H332 (inhalation) Harmful if inhaled.
- Sample 2**
 H225 Highly flammable liquid and vapour.
 H302 (oral) Harmful if swallowed.
 H312 (dermal) Harmful in contact with skin.
 H319 Causes serious eye irritation.
 H332 (inhalation) Harmful if inhaled.
- Sample 3**
 H225 Highly flammable liquid and vapour.
 H302 (oral) Harmful if swallowed.
 H312 (dermal) Harmful in contact with skin.
 H319 Causes serious eye irritation.
 H332 (inhalation) Harmful if inhaled.
- Sample 4**
 H225 Highly flammable liquid and vapour.
 H302 (oral) Harmful if swallowed.

SECTION 16: Other information

H312 (dermal) Harmful in contact with skin.
 H319 Causes serious eye irritation.
 H332 (inhalation) Harmful if inhaled.

Full text of classifications [CLP/GHS]

Sample 1
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2

Sample 2
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2

Sample 3
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2

Sample 4
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2

Full text of abbreviated R phrases

Sample 1
 R11- Highly flammable.
 R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
 R36- Irritating to eyes.

Sample 2
 R11- Highly flammable.
 R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
 R36- Irritating to eyes.

Sample 3
 R11- Highly flammable.
 R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
 R36- Irritating to eyes.

Sample 4
 R11- Highly flammable.
 R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
 R36- Irritating to eyes.

Full text of classifications [DSD/DPD]

Sample 1
 F - Highly flammable
 Xn - Harmful
 Xi - Irritant

Sample 2
 F - Highly flammable
 Xn - Harmful
 Xi - Irritant

Sample 3
 F - Highly flammable
 Xn - Harmful
 Xi - Irritant

Sample 4
 F - Highly flammable
 Xn - Harmful
 Xi - Irritant

Date of issue/ Date of revision : 03/12/2015

Date of previous issue : 27/02/2014.

Version : 3

SECTION 16: Other information

[Notice to reader](#)

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