

SAFETY DATA SHEET



ZORBAX Aqueous Method Development Kit, Part Number 5185-5809

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

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name : ZORBAX Aqueous Method Development Kit, Part Number 5185-5809
Part No. (Kit) : 5185-5809
Part No. : ZORBAX SB-Aq 883975-914
Bonus-RP 883668-901
SB-C18 Analytical HPLC 883975-902

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

Identified uses	
Analytical chemistry. HPLC column Solvent volume: < 10 mL	
ZORBAX SB-Aq	5 µm, 4.6 x 150 mm
Bonus-RP	5 µm, 4.6 x 150 mm
SB-C18 Analytical HPLC	5 µm, 4.6 x 150 mm

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

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

Product definition : ZORBAX SB-Aq Mixture (encapsulated in article)
Bonus-RP Mixture (encapsulated in article)
SB-C18 Analytical HPLC Mixture (encapsulated in article)

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

ZORBAX SB-Aq

H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4
H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H370 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

Bonus-RP

Date of issue/Date of revision : 27/04/2017

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
H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

SB-C18 Analytical HPLC

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

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

Hazard pictograms



Signal word

:	ZORBAX SB-Aq	Danger
	Bonus-RP	Danger
	SB-C18 Analytical HPLC	Danger

Hazard statements

:	ZORBAX SB-Aq	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. GHS08 - Causes damage to organs.
	Bonus-RP	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. GHS08 - Causes damage to organs.
	SB-C18 Analytical HPLC	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. GHS08 - Causes damage to organs.

Precautionary statements

Prevention

:	ZORBAX SB-Aq	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. P260 - Do not breathe vapour.
	Bonus-RP	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.

SECTION 2: Hazards identification

		<p>P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P260 - Do not breathe vapour. 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. P260 - Do not breathe vapour.</p>
	SB-C18 Analytical HPLC	
Response	: ZORBAX SB-Aq	<p>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.</p>
	Bonus-RP	<p>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.</p>
	SB-C18 Analytical HPLC	<p>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.</p>
Storage	: ZORBAX SB-Aq	P235 - Keep cool.
	Bonus-RP	P235 - Keep cool.
	SB-C18 Analytical HPLC	P235 - Keep cool.
Disposal	: ZORBAX SB-Aq	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Bonus-RP	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	SB-C18 Analytical HPLC	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: ZORBAX SB-Aq	- methanol
	Bonus-RP	- methanol
	SB-C18 Analytical HPLC	- methanol
Supplemental label elements	: ZORBAX SB-Aq	Not applicable.
	Bonus-RP	Not applicable.
	SB-C18 Analytical HPLC	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: ZORBAX SB-Aq	Not applicable.
	Bonus-RP	Not applicable.
	SB-C18 Analytical HPLC	Not applicable.
<u>Special packaging requirements</u>		
Tactile warning of danger	: ZORBAX SB-Aq	Not applicable.
	Bonus-RP	Not applicable.
	SB-C18 Analytical HPLC	Not applicable.
2.3 Other hazards		
Other hazards which do not result in classification	: ZORBAX SB-Aq	None known.
	Bonus-RP	None known.
	SB-C18 Analytical HPLC	None known.

SECTION 3: Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

3.1 Substances : ZORBAX SB-Aq Mixture (encapsulated in article)
 Bonus-RP Mixture (encapsulated in article)
 SB-C18 Analytical HPLC Mixture (encapsulated in article)

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
ZORBAX SB-Aq Methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	≥10 - ≤25	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]
Bonus-RP Methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	≥10 - ≤25	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]
SB-C18 Analytical HPLC Methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	≥25 - <30	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 See Section 16 for the full text of the H statements declared above.	[1] [2]

Contains: Organosilane bonded silica gel

Note: To the best of our knowledge, the acute and chronic toxicological properties of bonded silica gels have not been investigated. This product contains synthetic amorphous silica, and should not be confused with crystalline silica such as quartz, cristobalite, or tridymite, or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms of silica. Organosilane bonded silica gel

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : ZORBAX SB-Aq

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.

Bonus-RP

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.

SECTION 4: First aid measures

	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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.

SECTION 4: First aid measures**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

Eye contact	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Inhalation	: ZORBAX SB-Aq	Harmful if inhaled.
	Bonus-RP	Harmful if inhaled.
	SB-C18 Analytical HPLC	Harmful if inhaled.
Skin contact	: ZORBAX SB-Aq	Harmful in contact with skin.
	Bonus-RP	Harmful in contact with skin.
	SB-C18 Analytical HPLC	Harmful in contact with skin.
Ingestion	: ZORBAX SB-Aq	Harmful if swallowed.
	Bonus-RP	Harmful if swallowed.
	SB-C18 Analytical HPLC	Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Inhalation	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Skin contact	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Ingestion	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: ZORBAX SB-Aq	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Bonus-RP	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	SB-C18 Analytical HPLC	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: ZORBAX SB-Aq	No specific treatment.
	Bonus-RP	No specific treatment.
	SB-C18 Analytical HPLC	No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	: ZORBAX SB-Aq	Use dry chemical, CO ₂ , water spray (fog) or foam.
	Bonus-RP	Use dry chemical, CO ₂ , water spray (fog) or foam.
	SB-C18 Analytical HPLC	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: ZORBAX SB-Aq	Do not use water jet.
	Bonus-RP	Do not use water jet.
	SB-C18 Analytical HPLC	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	Highly flammable liquid and vapour. In a fire or if heated, a

SECTION 5: Firefighting measures

		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	: ZORBAX SB-Aq	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides Formaldehyde.
	Bonus-RP	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides Formaldehyde.
	SB-C18 Analytical HPLC	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides Formaldehyde.
5.3 Advice for firefighters		
Special precautions for fire-fighters	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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

SECTION 6: Accidental release measures

For non-emergency personnel	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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.
For emergency responders	: ZORBAX SB-Aq	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".
	Bonus-RP	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".
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Bonus-RP	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	SB-C18 Analytical HPLC	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for containment and cleaning up		
Methods for cleaning up	: ZORBAX SB-Aq	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.
	Bonus-RP	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,

SECTION 6: Accidental release measures

SB-C18 Analytical HPLC 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. 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 : ZORBAX SB-Aq 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.

Bonus-RP 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.

SB-C18 Analytical HPLC 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.

SECTION 7: Handling and storage

Advice on general occupational hygiene	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
	Bonus-RP	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
	SB-C18 Analytical HPLC	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso Directive - Reporting thresholds (in tonnes)**Named substances**

SECTION 7: Handling and storage

Name	Notification and MAPP threshold	Safety report threshold
ZORBAX SB-Aq Methanol	500	5000
Bonus-RP Methanol	500	5000
SB-C18 Analytical HPLC Methanol	500	5000

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
ZORBAX SB-Aq H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	50 5000	200 50000
Bonus-RP H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	50 5000	200 50000
SB-C18 Analytical HPLC H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	50 5000	200 50000

7.3 Specific end use(s)

Recommendations	: ZORBAX SB-Aq	Industrial applications, Professional applications.
	Bonus-RP	Industrial applications, Professional applications.
	SB-C18 Analytical HPLC	Industrial applications, Professional applications.
Industrial sector specific solutions	: ZORBAX SB-Aq	Not applicable.
	Bonus-RP	Not applicable.
	SB-C18 Analytical HPLC	Not applicable.

SECTION 8: Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
ZORBAX SB-Aq Methanol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 333 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 266 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
Bonus-RP Methanol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin. STEL: 333 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 266 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
SB-C18 Analytical HPLC Methanol	EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed

SECTION 8: Exposure controls/personal protection**through skin.**STEL: 333 mg/m³ 15 minutes.

STEL: 250 ppm 15 minutes.

TWA: 266 mg/m³ 8 hours.

TWA: 200 ppm 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/DMELs 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: 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.

SECTION 8: Exposure controls/personal protection

- 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**9.1 Information on basic physical and chemical properties****Appearance**

Physical state	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Solid. (containing flammable liquid) Solid. (containing flammable liquid) Solid. (containing flammable liquid)
Colour	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Odour	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Odour threshold	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
pH	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Melting point/freezing point	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Initial boiling point and boiling range	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Flash point	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Closed cup: -18 to 23°C Closed cup: -18 to 23°C Closed cup: -18 to 23°C
Evaporation rate	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Flammability (solid, gas)	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Contains: Flammable liquid Contains: Flammable liquid Contains: Flammable liquid
Upper/lower flammability or explosive limits	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.

SECTION 9: Physical and chemical properties

Vapour pressure	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Vapour density	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Relative density	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Solubility(ies)	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Mobile phase: Soluble Stationary phase: Insoluble Mobile phase: Soluble Stationary phase: Insoluble Mobile phase: Soluble Stationary phase: Insoluble
Partition coefficient: n-octanol/water	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Auto-ignition temperature	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Decomposition temperature	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Viscosity	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Explosive properties	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Oxidising properties	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	The product is stable. The product is stable. The product is stable.

SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions	: ZORBAX SB-Aq	Under normal conditions of storage and use, hazardous reactions will not occur.
	Bonus-RP	Under normal conditions of storage and use, hazardous reactions will not occur.
	SB-C18 Analytical HPLC	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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	: ZORBAX SB-Aq	Reactive or incompatible with the following materials: oxidizing materials. Incompatible with hydrogen fluoride.
	Bonus-RP	Reactive or incompatible with the following materials: oxidizing materials. Incompatible with hydrogen fluoride.
	SB-C18 Analytical HPLC	Reactive or incompatible with the following materials: oxidizing materials. Incompatible with hydrogen fluoride.
10.6 Hazardous decomposition products	: ZORBAX SB-Aq	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Bonus-RP	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	SB-C18 Analytical HPLC	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
ZORBAX SB-Aq Methanol	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
Bonus-RP Methanol	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
SB-C18 Analytical HPLC Methanol	LC50 Inhalation Vapour	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapour	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Acute toxicity estimates

SECTION 11: Toxicological information

Route	ATE value
ZORBAX SB-Aq Oral Dermal Inhalation (vapours)	414.9 mg/kg 1244.8 mg/kg 12.45 mg/l
Bonus-RP Oral Dermal Inhalation (vapours)	421.9 mg/kg 1265.8 mg/kg 12.66 mg/l
SB-C18 Analytical HPLC Oral Dermal Inhalation (vapours)	367.6 mg/kg 1102.9 mg/kg 11.03 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ZORBAX SB-Aq Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Bonus-RP Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
SB-C18 Analytical HPLC Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ZORBAX SB-Aq Methanol	Category 1	Not determined	Not determined
Bonus-RP Methanol	Category 1	Not determined	Not determined
SB-C18 Analytical HPLC Methanol	Category 1	Not determined	Not determined

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : ZORBAX SB-Aq Routes of entry anticipated: Oral, Dermal, Inhalation.
 Bonus-RP Routes of entry anticipated: Oral, Dermal, Inhalation.
 SB-C18 Analytical HPLC Routes of entry anticipated: Oral, Dermal, Inhalation.

SECTION 11: Toxicological informationPotential acute health effects

Inhalation	: ZORBAX SB-Aq	Harmful if inhaled.
	Bonus-RP	Harmful if inhaled.
	SB-C18 Analytical HPLC	Harmful if inhaled.
Ingestion	: ZORBAX SB-Aq	Harmful if swallowed.
	Bonus-RP	Harmful if swallowed.
	SB-C18 Analytical HPLC	Harmful if swallowed.
Skin contact	: ZORBAX SB-Aq	Harmful in contact with skin.
	Bonus-RP	Harmful in contact with skin.
	SB-C18 Analytical HPLC	Harmful in contact with skin.
Eye contact	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Ingestion	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Skin contact	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.
Eye contact	: ZORBAX SB-Aq	No specific data.
	Bonus-RP	No specific data.
	SB-C18 Analytical HPLC	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposureShort 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	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Carcinogenicity	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Mutagenicity	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Teratogenicity	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Developmental effects	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.
Fertility effects	: ZORBAX SB-Aq	No known significant effects or critical hazards.
	Bonus-RP	No known significant effects or critical hazards.
	SB-C18 Analytical HPLC	No known significant effects or critical hazards.

SECTION 11: Toxicological information

Other information	: ZORBAX SB-Aq	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.
	Bonus-RP	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.
	SB-C18 Analytical HPLC	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.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ZORBAX SB-Aq Methanol	Acute EC50 24500000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 290 mg/l Fresh water Chronic NOEC 9.96 mg/l Marine water	Fish - Danio rerio - Egg Algae - Ulva pertusa	96 hours 96 hours
Bonus-RP Methanol	Acute EC50 24500000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 290 mg/l Fresh water Chronic NOEC 9.96 mg/l Marine water	Fish - Danio rerio - Egg Algae - Ulva pertusa	96 hours 96 hours
SB-C18 Analytical HPLC Methanol	Acute EC50 24500000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 290 mg/l Fresh water Chronic NOEC 9.96 mg/l Marine water	Fish - Danio rerio - Egg Algae - Ulva pertusa	96 hours 96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ZORBAX SB-Aq Methanol	-0.77	<10	low
Bonus-RP Methanol	-0.77	<10	low
SB-C18 Analytical HPLC Methanol	-0.77	<10	low

12.4 Mobility in soil

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

Mobility : Not available.

SECTION 12: Ecological information

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

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

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 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.

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : ZORBAX SB-Aq Not applicable.
 Bonus-RP Not applicable.
 SB-C18 Analytical HPLC Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

Name
ZORBAX SB-Aq Methanol
Bonus-RP Methanol
SB-C18 Analytical HPLC Methanol

Danger criteria

Category
ZORBAX SB-Aq H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
Bonus-RP H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
SB-C18 Analytical HPLC H3: STOT Single exposure 1 P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.

SECTION 15: Regulatory information

Canada	: Not determined.
China	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: All components are listed or exempted.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Turkey	: Not determined.
United States	: 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]
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
ZORBAX SB-Aq Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 STOT SE 1, H370	On basis of test data Calculation method Calculation method Calculation method Calculation method
Bonus-RP Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 STOT SE 1, H370	On basis of test data Calculation method Calculation method Calculation method Calculation method
SB-C18 Analytical HPLC Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 STOT SE 1, H370	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

ZORBAX SB-Aq H225 H301 H302 H311 H312 H331 H332 H370	Highly flammable liquid and vapour. Toxic if swallowed. Harmful if swallowed. Toxic in contact with skin. Harmful in contact with skin. Toxic if inhaled. Harmful if inhaled. Causes damage to organs.
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SECTION 16: Other information

Bonus-RP

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H370	Causes damage to organs.

SB-C18 Analytical HPLC

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H370	Causes damage to organs.

[Full text of classifications \[CLP/GHS\]](#)

ZORBAX SB-Aq

Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 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
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

Bonus-RP

Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 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
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

SB-C18 Analytical HPLC

Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY (inhalation) - Category 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
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1

Date of issue/ Date of revision : 27/04/2017

Date of previous issue : No previous validation.

Version : 1

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