

SAFETY DATA SHEET



ZORBAX Aqueous Method Development Kit, Part Number 5185-5809

Section 1. Identification

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. (Chemical Kit) : 5185-5809
Part No. : ZORBAX SB-Aq 883975-914
 Bonus-RP 883668-901
 SB-C18 Analytical HPLC 883975-902
Validation date : 4/27/2017

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

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

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

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

OSHA/HCS status : ZORBAX SB-Aq This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Bonus-RP This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 SB-C18 Analytical HPLC This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

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
 H315 SKIN IRRITATION - Category 2
 H319 EYE IRRITATION - Category 2A
 H360 TOXIC TO REPRODUCTION (Fertility) - Category 1B

Section 2. Hazards identification

H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS)) - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Bonus-RP

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY (oral) - Category 4
H312	ACUTE TOXICITY (dermal) - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H315	SKIN IRRITATION - Category 2
H319	EYE IRRITATION - Category 2A
H360	TOXIC TO REPRODUCTION (Fertility) - Category 1B
H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS)) - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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
H315	SKIN IRRITATION - Category 2
H319	EYE IRRITATION - Category 2A
H360	TOXIC TO REPRODUCTION (Fertility) - Category 1B
H360	TOXIC TO REPRODUCTION (Unborn child) - Category 1B
H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS)) - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

2.2 GHS label elements

Hazard pictograms



Signal word

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

Hazard statements

:	ZORBAX SB-Aq	GHS SYMBOL - Flame - Exclamation mark - Health hazard - H225 - Highly flammable liquid and vapor. H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled. H319 - Causes serious eye irritation. H315 - Causes skin irritation. H360 - May damage fertility or the unborn child. H370 - Causes damage to organs. (central nervous system (CNS)) H335 - May cause respiratory irritation.
	Bonus-RP	GHS SYMBOL - Flame - Exclamation mark - Health hazard - H225 - Highly flammable liquid and vapor.

Section 2. Hazards identification

SB-C18 Analytical HPLC

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
 H319 - Causes serious eye irritation.
 H315 - Causes skin irritation.
 H360 - May damage fertility or the unborn child.
 H370 - Causes damage to organs. (central nervous system (CNS))
 H335 - May cause respiratory irritation.
 GHS SYMBOL - **Flame - Exclamation mark - Health hazard** -
 H225 - Highly flammable liquid and vapor.
 H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
 H319 - Causes serious eye irritation.
 H315 - Causes skin irritation.
 H360 - May damage fertility or the unborn child.
 H370 - Causes damage to organs. (central nervous system (CNS))
 H335 - May cause respiratory irritation.

Precautionary statements

Prevention

: ZORBAX SB-Aq

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P233 - Keep container tightly closed.
 P271 - Use only outdoors or in a well-ventilated area.
 P260 - Do not breathe vapor.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash hands thoroughly after handling.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P233 - Keep container tightly closed.
 P271 - Use only outdoors or in a well-ventilated area.
 P260 - Do not breathe vapor.
 P270 - Do not eat, drink or smoke when using this

Bonus-RP

Section 2. Hazards identification

SB-C18 Analytical HPLC

product.
 P264 - Wash hands thoroughly after handling.
 P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P233 - Keep container tightly closed.
 P271 - Use only outdoors or in a well-ventilated area.
 P260 - Do not breathe vapor.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash hands thoroughly after handling.
 P307 + P311 - IF exposed: Call a POISON CENTER or physician.
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
 P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.
 P332 + P313 - If skin irritation occurs: Get medical attention.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 - If eye irritation persists: Get medical attention.
 P307 + P311 - IF exposed: Call a POISON CENTER or physician.
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
 P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Response

: ZORBAX SB-Aq

Bonus-RP

Section 2. Hazards identification

	SB-C18 Analytical HPLC	<p>P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.</p> <p>P332 + P313 - If skin irritation occurs: Get medical attention.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical attention.</p> <p>P307 + P311 - IF exposed: Call a POISON CENTER or physician.</p> <p>P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.</p> <p>P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse.</p> <p>P332 + P313 - If skin irritation occurs: Get medical attention.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical attention.</p>
Storage	: ZORBAX SB-Aq	<p>P405 - Store locked up.</p> <p>P403 - Store in a well-ventilated place.</p> <p>P235 - Keep cool.</p>
	Bonus-RP	<p>P405 - Store locked up.</p> <p>P403 - Store in a well-ventilated place.</p> <p>P235 - Keep cool.</p>
	SB-C18 Analytical HPLC	<p>P405 - Store locked up.</p> <p>P403 - Store in a well-ventilated place.</p> <p>P235 - Keep cool.</p>
Disposal	: ZORBAX SB-Aq	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
	Bonus-RP	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
	SB-C18 Analytical HPLC	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>

Section 2. Hazards identification

Supplemental label elements	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	None known. None known. None known.
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2.3 Other hazards

Hazards not otherwise classified	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	None known. None known. None known.
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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.

Substance/mixture	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article)
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Ingredient name	%	CAS number
ZORBAX SB-Aq Methanol	≥10 - ≤25	67-56-1
Bonus-RP Methanol	≥10 - ≤25	67-56-1
SB-C18 Analytical HPLC Methanol	≥25 - <30	67-56-1

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

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

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.
	SB-C18 Analytical HPLC	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Section 4. First aid measures

Inhalation

: ZORBAX SB-Aq

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.

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

Section 4. First aid measures

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.

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

Section 4. First aid measures

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Harmful if inhaled. May cause respiratory irritation. Harmful if inhaled. May cause respiratory irritation. Harmful if inhaled. May cause respiratory irritation.
Skin contact	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Harmful in contact with skin. Causes skin irritation. Harmful in contact with skin. Causes skin irritation. Harmful in contact with skin. Causes skin irritation.
Ingestion	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Harmful if swallowed. Harmful if swallowed. Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	: ZORBAX SB-Aq	Adverse symptoms may include the following: pain or irritation watering redness
	Bonus-RP	Adverse symptoms may include the following: pain or irritation watering redness
	SB-C18 Analytical HPLC	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: ZORBAX SB-Aq	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
	Bonus-RP	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
	SB-C18 Analytical HPLC	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations

Section 4. First aid measures

Skin contact	: ZORBAX SB-Aq	Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
	Bonus-RP	Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
	SB-C18 Analytical HPLC	Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: ZORBAX SB-Aq	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Bonus-RP	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	SB-C18 Analytical HPLC	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

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

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.
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

Section 4. First aid measures

SB-C18 Analytical HPLC

providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : ZORBAX SB-Aq
Bonus-RP
SB-C18 Analytical HPLC

Unsuitable extinguishing media : ZORBAX SB-Aq
Bonus-RP
SB-C18 Analytical HPLC

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

Do not use water jet.
Do not use water jet.
Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical : ZORBAX SB-Aq

Bonus-RP

SB-C18 Analytical HPLC

Highly flammable liquid and vapor. 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.

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Hazardous thermal decomposition products : ZORBAX SB-Aq

Bonus-RP

SB-C18 Analytical HPLC

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
Formaldehyde.

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carbon dioxide
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metal oxide/oxides
Formaldehyde.

Decomposition products may include the following materials:
carbon dioxide
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metal oxide/oxides

Section 5. Fire-fighting measures

Formaldehyde.

5.3 Advice for firefighters

Special protective actions for fire-fighters : ZORBAX SB-Aq

Bonus-RP

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.

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Special protective equipment for fire-fighters : ZORBAX SB-Aq

Bonus-RP

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.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : ZORBAX SB-Aq

Bonus-RP

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 vapor or mist.

Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist.

Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

No action shall be taken involving any personal

Section 6. Accidental release measures

risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

For emergency responders : ZORBAX SB-Aq

Bonus-RP

SB-C18 Analytical HPLC

6.2 Environmental precautions : ZORBAX SB-Aq

Bonus-RP

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).

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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : ZORBAX SB-Aq

Bonus-RP

SB-C18 Analytical HPLC

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.

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

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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). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Bonus-RP

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

SB-C18 Analytical HPLC

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless

Section 7. Handling and storage

		<p>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.</p>
<p>Advice on general occupational hygiene</p>	<p>: ZORBAX SB-Aq</p> <p>Bonus-RP</p> <p>SB-C18 Analytical HPLC</p>	<p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p> <p>Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
<p>7.2 Conditions for safe storage, including any incompatibilities</p>	<p>: ZORBAX SB-Aq</p> <p>Bonus-RP</p>	<p>Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p> <p>Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid</p>

Section 7. Handling and storage

SB-C18 Analytical HPLC

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

7.3 Specific end use(s)

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

Ingredient name	Exposure limits
ZORBAX SB-Aq Methanol	<p>ACGIH TLV (United States, 3/2016). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes.</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 10/2013). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 6/2016). TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.</p>
Bonus-RP Methanol	<p>ACGIH TLV (United States, 3/2016). Absorbed through skin.</p>

Section 8. Exposure controls/personal protection

SB-C18 Analytical HPLC
Methanol

TWA: 200 ppm 8 hours.
TWA: 262 mg/m³ 8 hours.
STEL: 250 ppm 15 minutes.
STEL: 328 mg/m³ 15 minutes.
OSHA PEL 1989 (United States, 3/1989).
Absorbed through skin.
TWA: 200 ppm 8 hours.
TWA: 260 mg/m³ 8 hours.
STEL: 250 ppm 15 minutes.
STEL: 325 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2013).
Absorbed through skin.
TWA: 200 ppm 10 hours.
TWA: 260 mg/m³ 10 hours.
STEL: 250 ppm 15 minutes.
STEL: 325 mg/m³ 15 minutes.
OSHA PEL (United States, 6/2016).
TWA: 200 ppm 8 hours.
TWA: 260 mg/m³ 8 hours.

ACGIH TLV (United States, 3/2016).
Absorbed through skin.
TWA: 200 ppm 8 hours.
TWA: 262 mg/m³ 8 hours.
STEL: 250 ppm 15 minutes.
STEL: 328 mg/m³ 15 minutes.
OSHA PEL 1989 (United States, 3/1989).
Absorbed through skin.
TWA: 200 ppm 8 hours.
TWA: 260 mg/m³ 8 hours.
STEL: 250 ppm 15 minutes.
STEL: 325 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2013).
Absorbed through skin.
TWA: 200 ppm 10 hours.
TWA: 260 mg/m³ 10 hours.
STEL: 250 ppm 15 minutes.
STEL: 325 mg/m³ 15 minutes.
OSHA PEL (United States, 6/2016).
TWA: 200 ppm 8 hours.
TWA: 260 mg/m³ 8 hours.

8.2 Exposure controls

Appropriate engineering controls

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

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Solid. (containing flammable liquid) Solid. (containing flammable liquid) Solid. (containing flammable liquid)
Color	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Odor	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Odor 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	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Boiling point	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.

Section 9. Physical and chemical properties

Flash point	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Closed cup: -18 to 23°C (-0.4 to 73.4°F) Closed cup: -18 to 23°C (-0.4 to 73.4°F) Closed cup: -18 to 23°C (-0.4 to 73.4°F)
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
Lower and upper explosive (flammable) limits	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Vapor pressure	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	Not available. Not available. Not available.
Vapor 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	: 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.

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 pressurize, 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 pressurize, 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 pressurize, 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 Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
Bonus-RP Methanol	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours

Section 11. Toxicological information

SB-C18 Analytical HPLC Methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

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	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
ZORBAX SB-Aq Methanol	Category 1	Not determined	central nervous system (CNS)
	Category 3	Not applicable.	Respiratory tract irritation
Bonus-RP Methanol	Category 1	Not determined	central nervous

Section 11. Toxicological information

SB-C18 Analytical HPLC Methanol	Category 3	Not applicable.	system (CNS) Respiratory tract irritation
	Category 1	Not determined	central nervous system (CNS)
	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the 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.

Potential acute health effects

Eye contact	: ZORBAX SB-Aq	Causes serious eye irritation.
	Bonus-RP	Causes serious eye irritation.
	SB-C18 Analytical HPLC	Causes serious eye irritation.
Inhalation	: ZORBAX SB-Aq	Harmful if inhaled. May cause respiratory irritation.
	Bonus-RP	Harmful if inhaled. May cause respiratory irritation.
	SB-C18 Analytical HPLC	Harmful if inhaled. May cause respiratory irritation.
Skin contact	: ZORBAX SB-Aq	Harmful in contact with skin. Causes skin irritation.
	Bonus-RP	Harmful in contact with skin. Causes skin irritation.
	SB-C18 Analytical HPLC	Harmful in contact with skin. Causes skin irritation.
Ingestion	: ZORBAX SB-Aq	Harmful if swallowed.
	Bonus-RP	Harmful if swallowed.
	SB-C18 Analytical HPLC	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: ZORBAX SB-Aq	Adverse symptoms may include the following: pain or irritation watering redness
	Bonus-RP	Adverse symptoms may include the following: pain or irritation watering redness
	SB-C18 Analytical HPLC	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: ZORBAX SB-Aq	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
	Bonus-RP	Adverse symptoms may include the following:

Section 11. Toxicological information

respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

SB-C18 Analytical HPLC

Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact

: ZORBAX SB-Aq

Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Bonus-RP

Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

SB-C18 Analytical HPLC

Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion

: ZORBAX SB-Aq

Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Bonus-RP

Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

SB-C18 Analytical HPLC

Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Section 11. Toxicological information

Carcinogenicity	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	May damage the unborn child. May damage the unborn child. May damage the unborn child.
Developmental effects	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: ZORBAX SB-Aq Bonus-RP SB-C18 Analytical HPLC	May damage fertility. May damage fertility. May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

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

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.

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
ZORBAX SB-Aq Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154
Bonus-RP Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154
SB-C18 Analytical HPLC Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

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

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations : United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Section 15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
ZORBAX SB-Aq Methanol	≥10 - ≤25	Yes.	No.	No.	Yes.	Yes.
Bonus-RP Methanol	≥10 - ≤25	Yes.	No.	No.	Yes.	Yes.
SB-C18 Analytical HPLC Methanol	≥25 - <30	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	ZORBAX SB-Aq Methanol	67-56-1	≥10 - ≤25
	Bonus-RP Methanol	67-56-1	≥10 - ≤25
	SB-C18 Analytical HPLC Methanol	67-56-1	≥25 - <30
Supplier notification	ZORBAX SB-Aq Methanol	67-56-1	≥10 - ≤25
	Bonus-RP Methanol	67-56-1	≥10 - ≤25
	SB-C18 Analytical HPLC Methanol	67-56-1	≥25 - <30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Section 15. Regulatory information

- Massachusetts** : The following components are listed: METHANOL; METHYL ALCOHOL
New York : The following components are listed: Methanol
New Jersey : The following components are listed: METHYL ALCOHOL; METHANOL
Pennsylvania : The following components are listed: METHANOL
California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
ZORBAX SB-Aq Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
Bonus-RP Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
SB-C18 Analytical HPLC Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
Canada inventory : Not determined.
China : All components are listed or exempted.
Europe : 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.

Section 15. Regulatory information

Philippines	: <input checked="" type="checkbox"/> Not determined.
Republic of Korea	: <input checked="" type="checkbox"/> Not determined.
Taiwan	: All components are listed or exempted.
Turkey	: <input checked="" type="checkbox"/> Not determined.

Section 16. Other information

History

Date of issue	: 04/27/2017
Date of previous issue	: 11/13/2015.
Version	: 2

Indicates information that has changed from previously issued version.

Notice to reader

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