

SAFETY DATA SHEET



Rapid Resolution Selectivity Method Development Kit, Part Number 5190-1435

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 : Rapid Resolution Selectivity Method Development Kit, Part Number 5190-1435
Part No. (Chemical Kit) : 5190-1435
Part No. : Eclipse Plus C18 959961-902
 Eclipse Plus Phenyl-Hexyl 959961-912
 ZORBAX Bonus-RP 864668-901
Validation date : 4/25/2017

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

Material uses : Analytical chemistry.
 HPLC Column
 Solvent volume: < 10 ml
 Eclipse Plus C18 3.5 um, 4.6 x 100 mm
 Eclipse Plus Phenyl-Hexyl 4.6 x 100 mm, 3.5 um
 ZORBAX Bonus-RP 4.6 x 100 mm, 3.5 um

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 : Eclipse Plus C18 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Eclipse Plus Phenyl-Hexyl This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 ZORBAX Bonus-RP This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Eclipse Plus C18
 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

Eclipse Plus Phenyl-Hexyl

H225	FLAMMABLE LIQUIDS - Category 2
H319	EYE IRRITATION - Category 2A
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, central nervous system (CNS), kidneys, liver) - Category 2

ZORBAX Bonus-RP

H226	FLAMMABLE LIQUIDS - Category 3
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

:	Eclipse Plus C18	Danger
	Eclipse Plus Phenyl-Hexyl	Danger
	ZORBAX Bonus-RP	Danger

Hazard statements

:	Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	GHS SYMBOL - Flame - Exclamation mark - Health hazard - H225 - Highly flammable liquid and vapor. H319 - Causes serious eye irritation. H373 - May cause damage to organs through prolonged or repeated exposure. (blood system, central nervous system (CNS), kidneys, liver)
	ZORBAX Bonus-RP	GHS SYMBOL - Flame - Exclamation mark - Health hazard - H226 - Flammable liquid and vapor. H302 + H312 + H332 - Harmful if swallowed, in

Section 2. Hazards identification

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

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

P264 - Wash hands thoroughly after handling.
 P280 - Wear protective gloves. Wear eye or face protection.
 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.
 P260 - Do not breathe vapor.

ZORBAX Bonus-RP

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 P260 - Do not breathe vapor.

Section 2. Hazards identification

Response

: Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl

ZORBAX Bonus-RP

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.

P314 - Get medical attention if you feel unwell.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

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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

Section 2. Hazards identification

		contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	: Eclipse Plus C18	P405 - Store locked up.
	Eclipse Plus Phenyl-Hexyl	P403 - Store in a well-ventilated place. P235 - Keep cool.
	ZORBAX Bonus-RP	P403 - Store in a well-ventilated place. P235 - Keep cool. P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: Eclipse Plus C18	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Eclipse Plus Phenyl-Hexyl	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	ZORBAX Bonus-RP	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Eclipse Plus C18	None known.
	Eclipse Plus Phenyl-Hexyl	None known.
	ZORBAX Bonus-RP	None known.
2.3 Other hazards		
Hazards not otherwise classified	: Eclipse Plus C18	None known.
	Eclipse Plus Phenyl-Hexyl	None known.
	ZORBAX Bonus-RP	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.

Substance/mixture	: Eclipse Plus C18	Mixture (encapsulated in article)
	Eclipse Plus Phenyl-Hexyl	Mixture (encapsulated in article)
	ZORBAX Bonus-RP	Mixture (encapsulated in article)

Ingredient name	%	CAS number
Eclipse Plus C18 Methanol	≥25 - <30	67-56-1
Eclipse Plus Phenyl-Hexyl Acetonitrile	≥10 - <25	75-05-8
ZORBAX Bonus-RP Methanol	≥10 - ≤25	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.

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

Section 3. Composition/information on ingredients

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	: Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	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.
	ZORBAX 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.
Inhalation	: Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	ZORBAX 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

Section 4. First aid measures

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

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

ZORBAX 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.

Ingestion

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

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

Section 4. First aid measures

ZORBAX Bonus-RP

does not enter the lungs. Get medical attention following exposure or if feeling unwell. 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.

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Harmful if inhaled. May cause respiratory irritation. No known significant effects or critical hazards. Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Harmful in contact with skin. Causes skin irritation. No known significant effects or critical hazards. Harmful in contact with skin. Causes skin irritation.
Ingestion	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Harmful if swallowed. No known significant effects or critical hazards. Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact	: Eclipse Plus C18	Adverse symptoms may include the following: pain or irritation watering redness
	Eclipse Plus Phenyl-Hexyl	Adverse symptoms may include the following: pain or irritation watering redness
	ZORBAX Bonus-RP	Adverse symptoms may include the following: pain or irritation watering redness

Section 4. First aid measures

Inhalation : Eclipse Plus C18
 Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Eclipse Plus Phenyl-Hexyl
 ZORBAX Bonus-RP
 No specific data.
 Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Skin contact : Eclipse Plus C18
 Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Eclipse Plus Phenyl-Hexyl
 ZORBAX Bonus-RP
 No specific data.
 Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Ingestion : Eclipse Plus C18
 Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Eclipse Plus Phenyl-Hexyl
 ZORBAX Bonus-RP
 No specific data.
 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 : Eclipse Plus C18
 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
 Eclipse Plus Phenyl-Hexyl
 In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
 ZORBAX Bonus-RP
 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : Eclipse Plus C18
 No specific treatment.
 Eclipse Plus Phenyl-Hexyl
 No specific treatment.
 ZORBAX Bonus-RP
 No specific treatment.

Protection of first-aiders : Eclipse Plus C18
 No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

Section 4. First aid measures

Eclipse Plus Phenyl-Hexyl	before removing it, or wear gloves. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
ZORBAX 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.



See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	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	:  Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	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.
	ZORBAX Bonus-RP	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.
Hazardous thermal decomposition products	:  Eclipse Plus C18	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides Formaldehyde. Formaldehyde.
	Eclipse Plus Phenyl-Hexyl	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides cyanides
	ZORBAX Bonus-RP	Decomposition products may include the following

Section 5. Fire-fighting measures

materials:
 carbon dioxide
 carbon monoxide
 metal oxide/oxides
 Formaldehyde.
 Formaldehyde.

5.3 Advice for firefighters

Special protective actions for fire-fighters

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

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ZORBAX 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.

Special protective equipment for fire-fighters

: Eclipse Plus C18

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

Eclipse Plus Phenyl-Hexyl

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

ZORBAX 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.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

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

Section 6. Accidental release measures

ZORBAX Bonus-RP

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.

For emergency responders : Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl

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".

ZORBAX Bonus-RP

6.2 Environmental precautions : Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl

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).

ZORBAX Bonus-RP

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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl

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

Section 6. Accidental release measures

ZORBAX Bonus-RP

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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures : Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

ZORBAX 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

Section 7. Handling and storage

Advice on general occupational hygiene	: Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	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.
	ZORBAX 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.
7.2 Conditions for safe storage, including any incompatibilities	: Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate

Section 7. Handling and storage

ZORBAX Bonus-RP

containment to avoid 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	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	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
Eclipse Plus C18 Methanol	ACGIH TLV (United States, 3/2016). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m ³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 260 mg/m ³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). Absorbed through skin. TWA: 200 ppm 10 hours. TWA: 260 mg/m ³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m ³ 15 minutes. OSHA PEL (United States, 6/2016). TWA: 200 ppm 8 hours. TWA: 260 mg/m ³ 8 hours.
Eclipse Plus Phenyl-Hexyl Acetonitrile	ACGIH TLV (United States, 3/2016). Absorbed through skin.

Section 8. Exposure controls/personal protection

ZORBAX Bonus-RP
Methanol

TWA: 20 ppm 8 hours.
OSHA PEL 1989 (United States, 3/1989).
 TWA: 40 ppm 8 hours.
 TWA: 70 mg/m³ 8 hours.
 STEL: 60 ppm 15 minutes.
 STEL: 105 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2013).
 TWA: 20 ppm 10 hours.
 TWA: 34 mg/m³ 10 hours.
OSHA PEL (United States, 6/2016).
 TWA: 40 ppm 8 hours.
 TWA: 70 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

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: 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	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Solid. (containing flammable liquid) Solid.(containing flammable liquid) Solid.(containing flammable liquid)
Color	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Odor	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Odor threshold	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
pH	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Melting point	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Boiling point	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Flash point	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	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: 23 to 37.8°C (73.4 to 100°F)

Section 9. Physical and chemical properties

Evaporation rate	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Flammability (solid, gas)	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Contains: Flammable liquid Contains: Flammable liquid Contains: Flammable liquid
Lower and upper explosive (flammable) limits	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Vapor pressure	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Vapor density	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Relative density	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Solubility	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Mobile phase: Soluble Stationary phase: Insoluble Mobile phase: Soluble Stationary phase: Insoluble Mobile phase: Soluble Stationary phase: Insoluble
Partition coefficient: n-octanol/water	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Auto-ignition temperature	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Decomposition temperature	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.
Viscosity	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Not available. Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	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	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

10.4 Conditions to avoid	: Eclipse Plus C18	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.
	Eclipse Plus Phenyl-Hexyl	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.
	ZORBAX 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.
10.5 Incompatible materials	: Eclipse Plus C18	Reactive or incompatible with the following materials: oxidizing materials
	Eclipse Plus Phenyl-Hexyl	Reactive or incompatible with the following materials: oxidizing materials
	ZORBAX Bonus-RP	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: Eclipse Plus C18	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Eclipse Plus Phenyl-Hexyl	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	ZORBAX Bonus-RP	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
Eclipse Plus C18 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	-
Eclipse Plus Phenyl-Hexyl Acetonitrile	LC50 Inhalation Vapor	Rat	17100 ppm	4 hours
	LD50 Oral	Rat	2460 mg/kg	-
ZORBAX Bonus-RP 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	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
Eclipse Plus C18 Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams 40 milligrams 24 hours 20 milligrams	-
	Eyes - Moderate irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-
Eclipse Plus Phenyl-Hexyl Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
ZORBAX Bonus-RP Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams 40 milligrams 24 hours 20 milligrams	-
	Eyes - Moderate irritant	Rabbit	-		-
	Skin - Moderate irritant	Rabbit	-		-

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
Eclipse Plus C18 Methanol	Category 1	Not determined	central nervous system (CNS) Respiratory tract irritation
	Category 3	Not applicable.	
ZORBAX Bonus-RP Methanol	Category 1	Not determined	central nervous system (CNS) Respiratory tract irritation
	Category 3	Not applicable.	

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Eclipse Plus Phenyl-Hexyl Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Eclipse Plus C18
Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Routes of entry anticipated: Oral, Dermal, Inhalation.

Routes of entry anticipated: Oral, Dermal, Inhalation.

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact

: Eclipse Plus C18
Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Causes serious eye irritation.

Causes serious eye irritation.

Causes serious eye irritation.

Inhalation

: Eclipse Plus C18
Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Harmful if inhaled. May cause respiratory irritation.

No known significant effects or critical hazards.

Harmful if inhaled. May cause respiratory irritation.

Skin contact

: Eclipse Plus C18
Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Harmful in contact with skin. Causes skin irritation.

No known significant effects or critical hazards.

Harmful in contact with skin. Causes skin irritation.

Ingestion

: Eclipse Plus C18
Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Harmful if swallowed.

No known significant effects or critical hazards.

Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl

ZORBAX Bonus-RP

Adverse symptoms may include the following:
pain or irritation

watering

redness

Adverse symptoms may include the following:

pain or irritation

watering

redness

Adverse symptoms may include the following:

pain or irritation

watering

redness

Inhalation

: Eclipse Plus C18

Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight

increase in fetal deaths

skeletal malformations

No specific data.

Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight

increase in fetal deaths

Section 11. Toxicological information

Skin contact	: Eclipse Plus C18	skeletal malformations Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
	Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No specific data. Adverse symptoms may include the following: irritation redness reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	: Eclipse Plus C18	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No specific data. 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	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure. No known significant effects or critical hazards.
Carcinogenicity	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	May damage the unborn child. No known significant effects or critical hazards. May damage the unborn child.
Developmental effects	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: Eclipse Plus C18 Eclipse Plus Phenyl-Hexyl ZORBAX Bonus-RP	May damage fertility. No known significant effects or critical hazards. May damage fertility.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Eclipse Plus C18 Oral Dermal Inhalation (vapors)	366.3 mg/kg 1098.9 mg/kg 10.99 mg/l
Eclipse Plus Phenyl-Hexyl Oral Dermal Inhalation (vapors)	2475.2 mg/kg 5445.5 mg/kg 54.46 mg/l
ZORBAX Bonus-RP Oral Dermal Inhalation (vapors)	434.8 mg/kg 1304.3 mg/kg 13.04 mg/l

Other information

: Eclipse Plus C18

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.

Eclipse Plus Phenyl-Hexyl
ZORBAX Bonus-RP

Not available.

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
Eclipse Plus C18 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	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
Eclipse Plus Phenyl-Hexyl Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
ZORBAX 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	Fish - Danio rerio - Egg	96 hours

Section 12. Ecological information

Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
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12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Eclipse Plus Phenyl-Hexyl Acetonitrile	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Eclipse Plus C18 Methanol	-0.77	<10	low
Eclipse Plus Phenyl-Hexyl Acetonitrile	-0.34	3	low
ZORBAX Bonus-RP 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
Eclipse Plus C18 Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154
Eclipse Plus Phenyl-Hexyl Acetonitrile (I,T)	75-05-8	Listed	U003
ZORBAX Bonus-RP Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154

Section 13. Disposal considerations

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 : TSCA 8(a) PAIR: Acetonitrile
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Acetonitrile

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

Clean Air Act Section 602 : Not listed
Class I Substances

Clean Air Act Section 602 : Not listed
Class II Substances

DEA List I Chemicals : Not listed
(Precursor Chemicals)

DEA List II Chemicals : Not listed
(Essential Chemicals)

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

Section 15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Eclipse Plus C18 Methanol	≥25 - <30	Yes.	No.	No.	Yes.	Yes.
Eclipse Plus Phenyl-Hexyl Acetonitrile	≥10 - <25	Yes.	No.	No.	Yes.	Yes.
ZORBAX Bonus-RP Methanol	≥10 - ≤25	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Eclipse Plus C18 Methanol	67-56-1	≥25 - <30
	Eclipse Plus Phenyl-Hexyl Acetonitrile	75-05-8	≥10 - <25
	ZORBAX Bonus-RP Methanol	67-56-1	≥10 - ≤25
Supplier notification	Eclipse Plus C18 Methanol	67-56-1	≥25 - <30
	Eclipse Plus Phenyl-Hexyl Acetonitrile	75-05-8	≥10 - <25
	ZORBAX Bonus-RP Methanol	67-56-1	≥10 - ≤25

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

Massachusetts : The following components are listed: METHANOL; METHYL ALCOHOL; ACETONITRILE

New York : The following components are listed: Methanol; Acetonitrile; Ethanenitrile

New Jersey : The following components are listed: METHYL ALCOHOL; METHANOL; ACETONITRILE; CYANOMETHANE

Pennsylvania : The following components are listed: METHANOL; ACETONITRILE

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
Eclipse Plus C18 Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
ZORBAX Bonus-RP				

Section 15. Regulatory information

Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
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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	: <input checked="" type="checkbox"/> Not determined.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: <input checked="" type="checkbox"/> All components are listed or exempted.
New Zealand	: <input checked="" type="checkbox"/> Not determined.
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	: 04/25/2017
Date of previous issue	: 09/23/2015.
Version	: 2

Indicates information that has changed from previously issued version.

Notice to reader

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