

SAFETY DATA SHEET



RRHD Eclipse Plus Method Development Kit, Part Number 5190-6153

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 : RRHD Eclipse Plus Method Development Kit, Part Number 5190-6153
Part No. (Chemical Kit) : 5190-6153
Part No. : RRHD Eclipse Plus C18 959757-902
 RRHD Eclipse Plus C8 959757-906
 RRHD Eclipse Plus Ph-Hex 959757-912
Validation date : 3/30/2017

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

Material uses : Analytical chemistry.
 Column
 RRHD Eclipse Plus C18 2.1 x 50 mm, 1.8 um Solvent Volume:
 0.1 ml
 RRHD Eclipse Plus C8 2.1 x 50 mm, 1.8 um Solvent Volume:
 0.1 ml
 RRHD Eclipse Plus Ph-Hex 2.1 x 50 mm, 1.8 um Solvent Volume:
 0.1 ml

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 : RRHD Eclipse Plus C18 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 RRHD Eclipse Plus C8 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 RRHD Eclipse Plus Ph-Hex This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Section 2. Hazards identification

RRHD Eclipse Plus C18

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

RRHD Eclipse Plus C8

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

RRHD Eclipse Plus Ph-Hex

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

2.2 GHS label elements

Hazard pictograms



Signal word

: RRHD Eclipse Plus C18 Danger
 RRHD Eclipse Plus C8 Danger
 RRHD Eclipse Plus Ph-Hex Danger

Hazard statements

: RRHD Eclipse Plus C18
 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)

RRHD Eclipse Plus C8
 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)

RRHD Eclipse Plus Ph-Hex
 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)

Precautionary statements

Prevention

: RRHD Eclipse Plus C18
 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.

Section 2. Hazards identification

		<p>P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P260 - Do not breathe vapor. 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. 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. P264 - Wash hands thoroughly after handling.</p>
	RRHD Eclipse Plus C8	
		<p>P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P260 - Do not breathe vapor. 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. P264 - Wash hands thoroughly after handling.</p>
	RRHD Eclipse Plus Ph-Hex	
Response	: RRHD Eclipse Plus C18	<p>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.</p>
	RRHD Eclipse Plus C8	<p>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.</p>
	RRHD Eclipse Plus Ph-Hex	<p>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</p>

Section 2. Hazards identification

		rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
Storage	: RRHD Eclipse Plus C18	P403 - Store in a well-ventilated place.
	RRHD Eclipse Plus C8	P235 - Keep cool.
	RRHD Eclipse Plus Ph-Hex	P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: RRHD Eclipse Plus C18	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	RRHD Eclipse Plus C8	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	RRHD Eclipse Plus Ph-Hex	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: <input checked="" type="checkbox"/> RRHD Eclipse Plus C18	None known.
	RRHD Eclipse Plus C8	None known.
	RRHD Eclipse Plus Ph-Hex	None known.
2.3 Other hazards		
Hazards not otherwise classified	: RRHD Eclipse Plus C18	None known.
	RRHD Eclipse Plus C8	None known.
	RRHD Eclipse Plus Ph-Hex	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	: <input checked="" type="checkbox"/> RRHD Eclipse Plus C18	Mixture (encapsulated in article)
	RRHD Eclipse Plus C8	Mixture (encapsulated in article)
	RRHD Eclipse Plus Ph-Hex	Mixture (encapsulated in article)

Ingredient name	%	CAS number
<input checked="" type="checkbox"/> RRHD Eclipse Plus C18 Acetonitrile	≥10 - <25	75-05-8
RRHD Eclipse Plus C8 Acetonitrile	≥10 - <25	75-05-8
RRHD Eclipse Plus Ph-Hex Acetonitrile	≥10 - <25	75-05-8

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.

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	: RRHD 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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: RRHD Eclipse Plus C18	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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	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

Section 4. First aid measures

Skin contact

: RRHD Eclipse Plus C18

decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.

RRHD Eclipse Plus C8

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.

RRHD Eclipse Plus Ph-Hex

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.

Ingestion

: RRHD 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 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.

RRHD Eclipse Plus C8

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 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.

RRHD Eclipse Plus Ph-Hex

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

Section 4. First aid measures

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 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.
Skin contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.
Ingestion	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.

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

Section 4. First aid measures

Notes to physician	: RRHD Eclipse Plus C18	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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific treatment. No specific treatment. No specific treatment.
Protection of first-aiders	: RRHD Eclipse Plus C18	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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	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	: RRHD 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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	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.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

: RRHD Eclipse Plus C18

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
cyanides

RRHD Eclipse Plus C8

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
cyanides

RRHD Eclipse Plus Ph-Hex

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
cyanides

5.3 Advice for firefighters

Special protective actions for fire-fighters

: RRHD 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.

RRHD Eclipse Plus C8

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.

RRHD Eclipse Plus Ph-Hex

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

: RRHD 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.

RRHD Eclipse Plus C8

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

RRHD Eclipse Plus Ph-Hex

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	: RRHD 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.
	RRHD Eclipse Plus C8	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.
	RRHD Eclipse Plus Ph-Hex	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	: RRHD Eclipse Plus C18	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".
	RRHD Eclipse Plus C8	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".
	RRHD Eclipse Plus Ph-Hex	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".
6.2 Environmental precautions	: RRHD Eclipse Plus C18	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).
	RRHD Eclipse Plus C8	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).
	RRHD Eclipse Plus Ph-Hex	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,

Section 6. Accidental release measures

waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : RRHD Eclipse Plus C18

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.

RRHD Eclipse Plus C8

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.

RRHD Eclipse Plus Ph-Hex

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 : RRHD Eclipse Plus C18

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.

RRHD Eclipse Plus C8

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

Section 7. Handling and storage

	RRHD Eclipse Plus Ph-Hex	<p>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>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.</p>
Advice on general occupational hygiene	: RRHD Eclipse Plus C18	<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>
	RRHD Eclipse Plus C8	<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>
	RRHD Eclipse Plus Ph-Hex	<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>
7.2 Conditions for safe storage, including any incompatibilities	: RRHD Eclipse Plus C18	<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. 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>
	RRHD Eclipse Plus C8	<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,</p>

Section 7. Handling and storage

RRHD Eclipse Plus Ph-Hex

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 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. 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

: RRHD Eclipse Plus C18 Industrial applications, Professional applications.
 RRHD Eclipse Plus C8 Industrial applications, Professional applications.
 RRHD Eclipse Plus Ph-Hex Industrial applications, Professional applications.

Industrial sector specific solutions

: RRHD Eclipse Plus C18 Not applicable.
 RRHD Eclipse Plus C8 Not applicable.
 RRHD Eclipse Plus Ph-Hex 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
<p><input checked="" type="checkbox"/> RRHD Eclipse Plus C18 Acetonitrile</p>	<p>ACGIH TLV (United States, 3/2016). Absorbed through skin. 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.</p>
<p>RRHD Eclipse Plus C8 Acetonitrile</p>	<p>ACGIH TLV (United States, 3/2016). Absorbed through skin.</p>

Section 8. Exposure controls/personal protection

RRHD Eclipse Plus Ph-Hex
Acetonitrile

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: 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.

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.

Eye/face protection

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

Skin protection

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- 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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Solid. (containing flammable liquid) Solid. (containing flammable liquid) Solid. (containing flammable liquid)
Color	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	White. White. White.
Odor	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
Odor threshold	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
pH	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
Melting point	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
Boiling point	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
Flash point	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.
Flammability (solid, gas)	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Contains: Flammable liquid Contains: Flammable liquid Contains: Flammable liquid
Lower and upper explosive (flammable) limits	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Not available. Not available. Not available.

Section 9. Physical and chemical properties

Vapor pressure	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Vapor density	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Relative density	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Solubility	: RRHD Eclipse Plus C18	Mobile phase: Soluble Stationary phase: Insoluble
	RRHD Eclipse Plus C8	Mobile phase: Soluble Stationary phase: Insoluble
	RRHD Eclipse Plus Ph-Hex	Mobile phase: Soluble Stationary phase: Insoluble
Partition coefficient: n-octanol/water	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Auto-ignition temperature	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Decomposition temperature	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.
Viscosity	: RRHD Eclipse Plus C18	Not available.
	RRHD Eclipse Plus C8	Not available.
	RRHD Eclipse Plus Ph-Hex	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: RRHD Eclipse Plus C18	No specific test data related to reactivity available for this product or its ingredients.
	RRHD Eclipse Plus C8	No specific test data related to reactivity available for this product or its ingredients.
	RRHD Eclipse Plus Ph-Hex	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: RRHD Eclipse Plus C18	The product is stable.
	RRHD Eclipse Plus C8	The product is stable.
	RRHD Eclipse Plus Ph-Hex	The product is stable.
10.3 Possibility of hazardous reactions	: RRHD Eclipse Plus C18	Under normal conditions of storage and use, hazardous reactions will not occur.
	RRHD Eclipse Plus C8	Under normal conditions of storage and use, hazardous reactions will not occur.
	RRHD Eclipse Plus Ph-Hex	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: RRHD 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.
	RRHD Eclipse Plus C8	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.

Section 10. Stability and reactivity

RRHD Eclipse Plus Ph-Hex

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 : RRHD Eclipse Plus C18

Reactive or incompatible with the following materials:
oxidizing materials. Incompatible with hydrogen fluoride.

RRHD Eclipse Plus C8

Reactive or incompatible with the following materials:
oxidizing materials. Incompatible with hydrogen fluoride.

RRHD Eclipse Plus Ph-Hex

Reactive or incompatible with the following materials:
oxidizing materials. Incompatible with hydrogen fluoride.

10.6 Hazardous decomposition products : RRHD Eclipse Plus C18

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

RRHD Eclipse Plus C8

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

RRHD Eclipse Plus Ph-Hex

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
RRHD Eclipse Plus C18 Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
RRHD Eclipse Plus C8 Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
RRHD Eclipse Plus Ph-Hex Acetonitrile	LC50 Inhalation Vapor LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
RRHD Eclipse Plus C18 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	-
	Skin - Mild irritant	Rabbit	-		-
RRHD Eclipse Plus C8 Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters 500	-
	Skin - Mild irritant	Rabbit	-		-

Section 11. Toxicological information

RRHD Eclipse Plus Ph-Hex Acetonitrile	Eyes - Moderate irritant	Rabbit	-	milligrams	
	Skin - Mild irritant	Rabbit	-	24 hours 100 microliters 500 milligrams	- -

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
RRHD Eclipse Plus C18 Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
RRHD Eclipse Plus C8 Acetonitrile	Category 2	Not determined	blood system, central nervous system (CNS), kidneys and liver
RRHD Eclipse Plus Ph-Hex 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

: RRHD Eclipse Plus C18

Routes of entry anticipated: Oral, Dermal, Inhalation.

RRHD Eclipse Plus C8

Routes of entry anticipated: Oral, Dermal, Inhalation.

RRHD Eclipse Plus Ph-Hex

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.
Skin contact	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.
Ingestion	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No specific data. No specific data. No specific data.

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	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure.
----------------	---	--

Section 11. Toxicological information

Carcinogenicity	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: RRHD Eclipse Plus C18 RRHD Eclipse Plus C8 RRHD Eclipse Plus Ph-Hex	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
RRHD Eclipse Plus C18 Oral Dermal Inhalation (vapors)	2463.1 mg/kg 5418.7 mg/kg 54.19 mg/l
RRHD Eclipse Plus C8 Oral Dermal Inhalation (vapors)	2463.1 mg/kg 5418.7 mg/kg 54.19 mg/l
RRHD Eclipse Plus Ph-Hex Oral Dermal Inhalation (vapors)	2688.2 mg/kg 5914 mg/kg 59.14 mg/l

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
RRHD Eclipse Plus C18 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
	RRHD Eclipse Plus C8 Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor
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

Section 12. Ecological information

Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water Chronic NOEC 160000 µg/l Fresh water	Aquatic plants - Lemna minor Daphnia - Daphnia magna Fish - Pimephales promelas Aquatic plants - Lemna minor Daphnia - Daphnia magna	96 hours 48 hours 96 hours 96 hours 21 days
--------------	--	--	---

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
RRHD Eclipse Plus C18 Acetonitrile	-	-	Readily
RRHD Eclipse Plus C8 Acetonitrile	-	-	Readily
RRHD Eclipse Plus Ph-Hex Acetonitrile	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
RRHD Eclipse Plus C18 Acetonitrile	-0.34	3	low
RRHD Eclipse Plus C8 Acetonitrile	-0.34	3	low
RRHD Eclipse Plus Ph-Hex Acetonitrile	-0.34	3	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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Section 13. Disposal considerations

Ingredient	CAS #	Status	Reference number
RRHD Eclipse Plus C18 Acetonitrile (I,T)	75-05-8	Listed	U003
RRHD Eclipse Plus C8 Acetonitrile (I,T)	75-05-8	Listed	U003
RRHD Eclipse Plus Ph-Hex Acetonitrile (I,T)	75-05-8	Listed	U003

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 (b) Hazardous Air Pollutants (HAPs) : Listed

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.

Section 15. Regulatory information



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
 RRHD Eclipse Plus C18 Acetonitrile	≥10 - <25	Yes.	No.	No.	Yes.	Yes.
RRHD Eclipse Plus C8 Acetonitrile	≥10 - <25	Yes.	No.	No.	Yes.	Yes.
RRHD Eclipse Plus Ph-Hex Acetonitrile	≥10 - <25	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	 RRHD Eclipse Plus C18 Acetonitrile	75-05-8	≥10 - <25
	RRHD Eclipse Plus C8 Acetonitrile	75-05-8	≥10 - <25
	RRHD Eclipse Plus Ph-Hex Acetonitrile	75-05-8	≥10 - <25
Supplier notification	 RRHD Eclipse Plus C18 Acetonitrile	75-05-8	≥10 - <25
	RRHD Eclipse Plus C8 Acetonitrile	75-05-8	≥10 - <25
	RRHD Eclipse Plus Ph-Hex Acetonitrile	75-05-8	≥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: ACETONITRILE
New York : The following components are listed: Acetonitrile; Ethanenitrile
New Jersey : The following components are listed: ACETONITRILE; CYANOMETHANE
Pennsylvania : The following components are listed: ACETONITRILE

California Prop. 65

No products were found.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

Section 15. Regulatory information

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	: 03/30/2017
Date of previous issue	: 07/01/2015.
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.