Section 1. Identification

Product identifier : FLD Standard Kit, Part Number 5190-9070
Part No. (Chemical Kit) : 5190-9070
Part No. : FLD Standard (Anthracene) 5190-9070-1
             FLD Standard (Blank) 5190-9070-2

Relevant identified uses of the substance or mixture and uses advised against
Analytical chemistry.
FLD Standard (Anthracene) 1 x 2 ml ampoule
FLD Standard (Blank) 1 x 2 ml ampoule

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture
FLD Standard (Anthracene)
H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4
H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

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

GHS label elements

Hazard pictograms : FLD Standard (Anthracene)
FLD Standard (Blank)

Signal word : DANGER
Section 2. Hazard(s) identification

H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.  
H319 - Causes serious eye irritation.  

FLD Standard (Blank) | : | H225 - Highly flammable liquid and vapour.  
H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.  
H319 - Causes serious eye irritation.  

| Precautionary statements | Prevention | FLD Standard (Anthracene) | 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.  
P261 - Avoid breathing vapour.  
P270 - Do not eat, drink or smoke when using this product.  
P264 - Wash hands thoroughly after handling.  

FLD Standard (Blank) | : | 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.  
P261 - Avoid breathing vapour.  
P270 - Do not eat, drink or smoke when using this product.  
P264 - Wash hands thoroughly after handling.  

| Response | : | FLD Standard (Anthracene) | P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.  
P309 + 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.  

FLD Standard (Blank) | : | P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.  

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**Section 2. Hazard(s) identification**

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 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.
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.

**Storage**


**Disposal**

- FLD Standard (Anthracene): P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- FLD Standard (Blank): P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements**

- FLD Standard (Anthracene): Not applicable.
- FLD Standard (Blank): Not applicable.

**Other hazards which do not result in classification**

- FLD Standard (Anthracene): None known.
- FLD Standard (Blank): None known.

**Section 3. Composition and ingredient information**

**Substance/mixture**

- FLD Standard (Anthracene): Mixture
- FLD Standard (Blank): Mixture

**CAS number/other identifiers**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLD Standard (Anthracene) Acetonitrile</td>
<td>≥60 - ≤75</td>
<td>75-05-8</td>
</tr>
<tr>
<td>FLD Standard (Blank) Acetonitrile</td>
<td>≥60 - ≤75</td>
<td>75-05-8</td>
</tr>
</tbody>
</table>

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**

**Description of necessary first aid measures**

**Eye contact**

- FLD Standard (Anthracene): 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.
- FLD Standard (Blank): 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.
### Section 4. First aid measures

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Inhalation** | FLD Standard (Anthracene)  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |

| FLD Standard (Blank) | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |

| **Skin contact** | FLD Standard (Anthracene)  
Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.  

| FLD Standard (Blank) | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. |

| **Ingestion** | FLD Standard (Anthracene)  
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 |

| FLD Standard (Blank) | 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 |
Section 4. First aid measures

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation  FLD Standard (Anthracene) Harmful if inhaled.
          FLD Standard (Blank) Harmful if inhaled.

Skin contact  FLD Standard (Anthracene) Harmful in contact with skin.
             FLD Standard (Blank) Harmful in contact with skin.

Ingestion  FLD Standard (Anthracene) Harmful if swallowed.
          FLD Standard (Blank) Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact  FLD Standard (Anthracene) Adverse symptoms may include the following:
             FLD Standard (Blank) Adverse symptoms may include the following:
             pain or irritation
             watering
             redness

Inhalation  FLD Standard (Anthracene) No specific data.
          FLD Standard (Blank) No specific data.

Skin contact  FLD Standard (Anthracene) No specific data.
             FLD Standard (Blank) No specific data.

Ingestion  FLD Standard (Anthracene) No specific data.
          FLD Standard (Blank) No specific data.

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

Notes to physician  FLD Standard (Anthracene) 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.
                  FLD Standard (Blank) 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  FLD Standard (Anthracene) No specific treatment.
                  FLD Standard (Blank) No specific treatment.
Section 4. First aid measures

Protection of first-aiders:  FLD Standard (Anthracene)  
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. Firefighting measures

Extinguishing media

Suitable extinguishing media:  FLD Standard (Anthracene)  
Use dry chemical, CO₂, water spray (fog) or foam.  
FLD Standard (Blank)  
Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media:  FLD Standard (Anthracene)  
Do not use water jet.  
FLD Standard (Blank)  
Do not use water jet.

Specific hazards arising from the chemical:  FLD Standard (Anthracene)  
Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

FLD Standard (Blank)  
Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products:  FLD Standard (Anthracene)  
Decomposition products may include the following materials:  
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- cyanides

FLD Standard (Blank)  
Decomposition products may include the following materials:  
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- cyanides

Special protective actions for fire-fighters:  FLD Standard (Anthracene)  
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.

FLD Standard (Blank)  
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...
**Section 5. Firefighting measures**

**Special protective equipment for fire-fighters**
- FLD Standard (Anthracene): Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- FLD Standard (Blank): Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Hazchem code**
- FLD Standard (Anthracene): •2YE
- FLD Standard (Blank): •2YE

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**Section 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

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

**For emergency responders**
- FLD Standard (Anthracene): If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- FLD Standard (Blank): If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**
- FLD Standard (Anthracene): Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- FLD Standard (Blank): Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and material for containment and cleaning up**
### Section 6. Accidental release measures

#### Methods for cleaning up

**FLD Standard (Anthracene)**

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.

**FLD Standard (Blank)**

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

#### Precautions for safe handling

**Protective measures**

**FLD Standard (Anthracene)**

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

**FLD Standard (Blank)**

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

#### Advice on general occupational hygiene

**FLD Standard (Anthracene)**

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.

**FLD Standard (Blank)**

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
Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

FLD Standard (Anthracene)
FLD Standard (Blank)

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

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
                                      STEL: 101 mg/m³ 15 minutes.  
                                      STEL: 60 ppm 15 minutes.  
                                      TWA: 67 mg/m³ 8 hours.  
                                      TWA: 40 ppm 8 hours.  |
| Acetonitrile                     |                                                     |
| FLD Standard (Blank)             | Safe Work Australia (Australia, 1/2014). Absorbed through skin.  
                                      STEL: 101 mg/m³ 15 minutes.  
                                      STEL: 60 ppm 15 minutes.  
                                      TWA: 67 mg/m³ 8 hours.  
                                      TWA: 40 ppm 8 hours.  |
| Acetonitrile                     |                                                     |

Appropriate engineering controls

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

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.

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Section 8. Exposure controls and personal protection

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

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

<table>
<thead>
<tr>
<th>Physical state</th>
<th>FLD Standard (Anthracene)</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLD Standard (Blank)</td>
<td>Liquid.</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>FLD Standard (Anthracene)</td>
<td>&gt;35°C (&gt;95°F)</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>&gt;35°C (&gt;95°F)</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>FLD Standard (Anthracene)</td>
<td>Closed cup: &lt;23°C (&lt;73.4°F)</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Closed cup: &lt;23°C (&lt;73.4°F)</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>FLD Standard (Anthracene)</td>
<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>FLD Standard (Anthracene)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
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<td>Not available.</td>
</tr>
<tr>
<td>FLD Standard (Blank)</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

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# Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>FLD Standard (Anthracene)</th>
<th>FLD Standard (Blank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td>Soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

# Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>FLD Standard (Anthracene)</th>
<th>FLD Standard (Blank)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.</td>
<td>Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Reactive or incompatible with the following materials: oxidizing materials</td>
<td>Reactive or incompatible with the following materials: oxidizing materials</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>
## Information on toxicological effects

### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>17100 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td>LD50 Oral</td>
<td></td>
<td>Rat</td>
<td>2460 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>17100 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td>LD50 Oral</td>
<td></td>
<td>Rat</td>
<td>2460 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

### Sensitisation

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)

Not available.

### Aspiration hazard

Not available.

### Information on likely routes of exposure

- **FLD Standard (Anthracene)**
  - Routes of entry anticipated: Oral, Dermal, Inhalation.

- **FLD Standard (Blank)**
  - Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- **Eye contact**
  - FLD Standard (Anthracene): Causes serious eye irritation.
  - FLD Standard (Blank): Causes serious eye irritation.

- **Inhalation**
  - FLD Standard (Anthracene): Harmful if inhaled.
  - FLD Standard (Blank): Harmful if inhaled.
Section 11. Toxicological information

Skin contact
- FLD Standard (Anthracene): Harmful in contact with skin.
- FLD Standard (Blank): Harmful in contact with skin.

Ingestion
- FLD Standard (Anthracene): Harmful if swallowed.
- FLD Standard (Blank): Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
- FLD Standard (Anthracene): Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- FLD Standard (Blank): Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

Inhalation
- FLD Standard (Anthracene): No specific data.
- FLD Standard (Blank): No specific data.

Skin contact
- FLD Standard (Anthracene): No specific data.
- FLD Standard (Blank): No specific data.

Ingestion
- FLD Standard (Anthracene): No specific data.
- FLD Standard (Blank): No specific data.

Delayed and immediate effects as well as 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
Not available.

General
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Carcinogenicity
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Mutagenicity
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Teratogenicity
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Developmental effects
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Fertility effects
- FLD Standard (Anthracene): No known significant effects or critical hazards.
- FLD Standard (Blank): No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates
### Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>772.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>1698.8 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapours)</td>
<td>16.99 mg/l</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>772.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>1698.8 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapours)</td>
<td>16.99 mg/l</td>
</tr>
</tbody>
</table>

### Section 12. Ecological information

#### Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td>Acetonitrile</td>
<td>Acute IC50 3685000 μg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3600000 μg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100000 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 160000 μg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>96 hours</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td>Acetonitrile</td>
<td>Acute IC50 3685000 μg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3600000 μg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100000 μg/l Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 160000 μg/l Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

#### Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td>Acetonitrile</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Acetonitrile</td>
<td>-</td>
<td>Readily</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td>Acetonitrile</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Acetonitrile</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

#### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td>Acetonitrile</td>
<td>-0.34</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Acetonitrile</td>
<td>-0.34</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Mobility in soil

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

#### Other adverse effects

- No known significant effects or critical hazards.
Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th></th>
<th>ADG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1648</td>
<td>UN1648</td>
<td>UN1648</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>ACETONITRILE solution</td>
<td>ACETONITRILE solution</td>
<td>Acetonitrile solution</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

Additional information

ADG: Hazchem code: 2YE
IMDG: Emergency schedules: F-E, S-D

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of Marpol and the IBC Code: Not available.

Section 15. Regulatory information


Model Work Health and Safety Regulations - Scheduled Substances: No listed substance

International regulations:
- Chemical Weapon Convention List Schedules I, II & III Chemicals
Section 15. Regulatory information

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**

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Japan (ENCS)</td>
<td>Japan inventory (ENCS): All components are listed or exempted.</td>
</tr>
<tr>
<td>Japan (ISHL)</td>
<td>Japan inventory (ISHL): All components are listed or exempted.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Not determined.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Philippines</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Section 16. Any other relevant information

**History**

| Date of issue/Date of revision: | 03/08/2017 |
| Date of previous issue:        | 12/04/2016 |
| Version:                       | 2          |

**Key to abbreviations**

- **ADG** = Australian Dangerous Goods
- **ATE** = Acute Toxicity Estimate
- **BCF** = Bioconcentration Factor
- **GHS** = Globally Harmonized System of Classification and Labelling of Chemicals
- **IATA** = International Air Transport Association
- **IBC** = Intermediate Bulk Container
- **IMDG** = International Maritime Dangerous Goods
- **LogPow** = logarithm of the octanol/water partition coefficient
- **MARPOL** = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- **NOHSC** = National Occupational Health and Safety Commission
- **SUSMP** = Standard Uniform Schedule of Medicine and Poisons
- **UN** = United Nations

**Procedure used to derive the classification**
### Section 16. Any other relevant information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLD Standard (Anthracene)</strong></td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2, H225</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4, H312</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4, H332</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>Calculation method</td>
</tr>
<tr>
<td><strong>FLD Standard (Blank)</strong></td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2, H225</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4, H312</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Acute Tox. 4, H332</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Eye Irrit. 2A, H319</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

**References**: Not available.

▲ Indicates information that has changed from previously issued version.

**Notice to reader**

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