**Kit Name:** China Pesticide Test Mix

**Kit PN:** G3440-85045

This product is a kit, composed of the following individual chemical components:

### Kit Components

<table>
<thead>
<tr>
<th>Component Part Number</th>
<th>Component Name</th>
<th>Volume or mass/container and unit</th>
<th>No. of component containers/kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI-P03-1</td>
<td>Pesticide Standard 1</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-2</td>
<td>Pesticide Standard 2</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-3</td>
<td>Pesticide Standard 3</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-4</td>
<td>Pesticide Standard 4</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-5</td>
<td>Pesticide Standard 5</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-6</td>
<td>Pesticide Standard 6</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-7</td>
<td>Pesticide Standard 7</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-8</td>
<td>Pesticide Standard 8</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-9</td>
<td>Pesticide Standard 9</td>
<td>1 mL</td>
<td>2</td>
</tr>
<tr>
<td>AGI-P03-10</td>
<td>Pesticide Standard 10</td>
<td>1 mL</td>
<td>2</td>
</tr>
</tbody>
</table>

SDSs for each component follow this cover sheet.

### Transportation Information for the Kit:

**Proper Shipping Names:**

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA/ICAO</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated</td>
<td>Not regulated</td>
<td>UN1648 Acetonitrile solution</td>
</tr>
</tbody>
</table>

Not regulated
1 Identification

- **Product identifier**
- **Trade name:** Pesticide Standard 1
- **Part number:** AGI-P03-1
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Agilent Technologies, Inc.
    5301 Stevens Creek Blvd.
    Santa Clara, CA  95051  USA
  - **Information department:**
    Telephone: 800-227-9770
e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
    Flam. Liq. 2  H225  Highly flammable liquid and vapor.
  - GHS07
    Acute Tox. 4  H302  Harmful if swallowed.
    Eye Irrit. 2A  H319  Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02
    - GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - acetonitrile

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Harmful if swallowed.
  - Causes serious eye irritation.

- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
Trade name: Pesticide Standard 1

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

If in case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)

Health = 2
Fire = 3
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH 2 Health = 2
FIRE 3 Fire = 3
REACTIVITY 0 Reactivity = 0

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

75-05-8 acetonitrile 99.733%

4 First-aid measures

Description of first aid measures
General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately rinse with water.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture**
  - **Advice for firefighters**
  - **Protective equipment:** No special measures required.

- **Indication of any immediate medical attention and special treatment needed**
  - No further relevant information available.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
  - Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

  **PAC-1:**
  - acetonitrile: 13 ppm
  - 51-03-6 piperonyl butoxide: 6.5 mg/m³
  - 2104-64-5 O-ethyl O-4-nitrophenyl phenylphosphonothioate: 0.45 mg/m³
  - 786-19-6 carbophenothion (ISO): 0.62 mg/m³
  - 99-30-9 dichloran: 7.2 mg/m³

  **PAC-2:**
  - acetonitrile: 50 ppm
  - 51-03-6 piperonyl butoxide: 72 mg/m³
  - 2104-64-5 O-ethyl O-4-nitrophenyl phenylphosphonothioate: 5 mg/m³
  - 786-19-6 carbophenothion (ISO): 6.8 mg/m³
  - 99-30-9 dichloran: 79 mg/m³

  **PAC-3:**
  - acetonitrile: 150 ppm
  - 51-03-6 piperonyl butoxide: 1,200 mg/m³
  - 2104-64-5 O-ethyl O-4-nitrophenyl phenylphosphonothioate: 50 mg/m³
Trade name: Pesticide Standard 1

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Long-term value</th>
<th>TLV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>70 mg/m³, 40 ppm</td>
<td>34 mg/m³, 20 ppm</td>
<td>34 mg/m³, 20 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.
- **Breathing equipment:**
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times
Trade name: Pesticide Standard 1

- exceeding 4 hrs. Supplier recommendations should be followed.
- **Material of gloves**
  - For normal use: nitrile rubber, 11-13 mil thickness
  - For direct contact with the chemical: butyl rubber, 12-15 mil thickness
- **Penetration time of glove material**
  - For normal use: nitrile rubber: 1 hour
  - For direct contact with the chemical: butyl rubber: >4 hours
- **Eye protection:**
  - Tightly sealed goggles

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Color: Colorless
  - **Odor:** Aromatic
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range: -46 °C (-50.8 °F)
  - Boiling point/Boiling range: 81 °C (177.8 °F)
- **Flash point:** 2 °C (35.6 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 525 °C (977 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - Lower: 4.4 Vol %
  - Upper: 16 Vol %
- **Vapor pressure at 20 °C (68 °F):** 0 hPa (0 mm Hg)
- **Density at 20 °C (68 °F):** 0.786 g/cm³ (6.55917 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
Safety Data Sheet
acc. to OSHA HCS

Printing date 10/08/2018  Reviewed on 10/08/2018

Trade name: Pesticide Standard 1

| **Partition coefficient (n-octanol/water):** | Not determined. |
| **Viscosity:** |  |
| Dynamic at 20 °C (68 °F): | 0.39 mPas |
| Kinematic: | Not determined. |
| **Solvent content:** |  |
| VOC content: | 0.00 % |
| | 0.0 g/l / 0.00 lb/gal |
| Solids content: | 0.2 % |
| **Other information** | No further relevant information available. |

### 10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:

| **LD/LC50 values that are relevant for classification:** |  |
| **ATE (Acute Toxicity Estimate)** |  |
| Oral | LD50 1,324 mg/kg (rat) |
| Dermal | LD50 >2,005 mg/kg (rabbit) |
| Inhalative | LC50/4 h 3,597 mg/L (mouse) |

**75-05-8 acetonitrile**

| Oral | LD50 1,320 mg/kg (rat) |
| Dermal | LD50 >2,000 mg/kg (rabbit) |
| Inhalative | LC50/4 h 3,587 mg/L (mouse) |

**25311-71-1 isofenphos (ISO)**

| Oral | LD50 21.1 mg/kg (rat) |
| Dermal | LD50 162 mg/kg (rabbit) |
| Inhalative | LC50/4 h 144 mg/L (rat) |

**119168-77-3 tebufenpyrad**

| Oral | LD50 595 mg/kg (rat) |
| Dermal | LD50 >2,000 mg/kg (rat) |

**24151-93-7 piperophos (ISO)**

| Oral | LD50 324 mg/kg (rat) |

(Contd. on page 7)
Trade name: Pesticide Standard 1

47.1.11 Dermal LD50 >2,150 mg/kg (rat)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Irritant

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    51-03-6 piperonyl butoxide 3
    52645-53-1 permethrin (ISO) 3
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.
### 14 Transport information

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
<th>UN1648</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOT, IMDG, IATA</strong></td>
<td>Acetonitrile solution</td>
</tr>
<tr>
<td><strong>DOT proper shipping name</strong></td>
<td>ACETONITRILE solution, MARINE POLLUTANT</td>
</tr>
<tr>
<td><strong>IMDG</strong></td>
<td>ACETONITRILE solution</td>
</tr>
<tr>
<td><strong>IATA</strong></td>
<td>Acetonitrile solution</td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DOT</strong></td>
<td>Class 3 Flammable liquids</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>IMDG</strong></td>
<td>Class 3 Flammable liquids</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>IATA</strong></td>
<td>Class 3 Flammable liquids</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>II</td>
</tr>
<tr>
<td><strong>DOT, IMDG, IATA</strong></td>
<td>Product contains environmentally hazardous substances: imazalil (ISO), permethrin (ISO)</td>
</tr>
<tr>
<td><strong>Environmental hazards:</strong></td>
<td>Symbol (fish and tree)</td>
</tr>
<tr>
<td><strong>Special precautions for user</strong></td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td><strong>Danger code (Kemler):</strong></td>
<td>33</td>
</tr>
<tr>
<td><strong>EMS Number:</strong></td>
<td>F-E,S-D</td>
</tr>
<tr>
<td><strong>Stowage Category</strong></td>
<td>B</td>
</tr>
<tr>
<td><strong>Stowage Code</strong></td>
<td>SW2 Clear of living quarters.</td>
</tr>
<tr>
<td><strong>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</strong></td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
Trade name: Pesticide Standard 1

- **Transport/Additional information:**
- **DOT**
- **Quantity limitations**
  - On passenger aircraft/rail: 5 L
  - On cargo aircraft only: 60 L

- **IMDG**
- **Limited quantities (LQ)**
  - 1L
- **Excepted quantities (EQ)**
  - Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":**
  - UN 1648 ACETONITRILE SOLUTION, 3, II,
    - ENVIRONMENTALLY HAZARDOUS

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - 2104-64-5 O-ethyl O-4-nitrophenyl phenylphosphonothioate
    - 786-19-6 carbophenothion (ISO)

- **Section 313 (Specific toxic chemical listings):**
  - 75-05-8 acetonitrile
  - 35554-44-0 imazalil (ISO)
  - 51-03-6 piperonyl butoxide
  - 30560-19-1 acephate (ISO)
  - 99-30-9 dichloran
  - 78-48-8 S,S,S-tributylphosphorotrithioate
  - 25311-71-1 isofenphos (ISO)
  - 43121-43-3 triadimefon (ISO)
  - 52645-53-1 permethrin (ISO)

- **TSCA (Toxic Substances Control Act):**
  - 75-05-8 acetonitrile
  - 51-03-6 piperonyl butoxide
  - 99-30-9 dichloran
  - 78-48-8 S,S,S-tributylphosphorotrithioate
  - 55283-68-6 N-ethyl-α,α,α-trifluoro-N-(2-methylallyl)-2,6-dinitro-para-toluidine

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - 35554-44-0 imazalil (ISO)
    - 110235-47-7 mepanipyrim
    - 78-48-8 S,S,S-tributylphosphorotrithioate
### Chemicals known to cause reproductive toxicity for females:

- 43121-43-3 triadimefon (ISO)

### Chemicals known to cause reproductive toxicity for males:

- 43121-43-3 triadimefon (ISO)

### Chemicals known to cause developmental toxicity:

- 43121-43-3 triadimefon (ISO)

### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - 75-05-8 acetonitrile
  - 51218-45-2 metolachlor

- **TLV (Threshold Limit Value established by ACGIH)**
  - 75-05-8 acetonitrile
  - 2104-64-5 O-ethyl O-4-nitrophenyl phenylphosphonothioate

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

---

### 16 Other information

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.

- **Date of preparation / last revision** 10/08/2018 / 3

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NIOSH: National Institute for Occupational Safety
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NFOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Flamm. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 4: Acute toxicity – Category 4
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

- * Data compared to the previous version altered.
1 Identification

- Product identifier
- Trade name: Pesticide Standard 2
- Part number: AGI-P03-2
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use
- Details of the supplier of the safety data sheet
  Manufacturer/Supplier: Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA
- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- Classification of the substance or mixture
  GHS02 Flame
  Flam. Liq. 2  H225  Highly flammable liquid and vapor.

  GHS07
  Acute Tox. 4  H302  Harmful if swallowed.
  Eye Irrit. 2A  H319  Causes serious eye irritation.

- Label elements
  - GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    GHS02   GHS07

- Signal word: Danger

- Hazard-determining components of labeling:
  acetonitrile

- Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed.
  Causes serious eye irritation.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
Trade name: Pesticide Standard 2

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)

[2] Health = 2
[0] Reactivity = 0

HMIS-ratings (scale 0 - 4)

[HEALTH] [2] Health = 2
[FIREFIRE] [3] Fire = 3
[REACTIVITY] [0] Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

| 75-05-8 acetonitrile | 99.721% |

4 First-aid measures

Description of first aid measures

General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately rinse with water.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Trade name: Pesticide Standard 2

- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: Water with full jet
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
  - Protective equipment: No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

### PAC-1:

<table>
<thead>
<tr>
<th>Substance (CAS)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>13 ppm</td>
</tr>
<tr>
<td>115-90-2 fensulfothion (ISO)</td>
<td>0.18 mg/m³</td>
</tr>
<tr>
<td>3689-24-5 sulfotep (ISO)</td>
<td>0.32 mg/m³</td>
</tr>
<tr>
<td>13194-48-4 ethoprophos (ISO)</td>
<td>0.14 mg/m³</td>
</tr>
<tr>
<td>7786-34-7 mevinphos (ISO)</td>
<td>0.3 mg/m³</td>
</tr>
<tr>
<td>13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate</td>
<td>0.091 mg/m³</td>
</tr>
<tr>
<td>24017-47-8 triazophos (ISO)</td>
<td>0.25 mg/m³</td>
</tr>
<tr>
<td>950-10-7 mephosfolan (ISO)</td>
<td>0.82 mg/m³</td>
</tr>
</tbody>
</table>

### PAC-2:

<table>
<thead>
<tr>
<th>Substance (CAS)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>50 ppm</td>
</tr>
<tr>
<td>115-90-2 fensulfothion (ISO)</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>3689-24-5 sulfotep (ISO)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>13194-48-4 ethoprophos (ISO)</td>
<td>1.6 mg/m³</td>
</tr>
<tr>
<td>7786-34-7 mevinphos (ISO)</td>
<td>4 mg/m³</td>
</tr>
<tr>
<td>13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: Pesticide Standard 2

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>24017-47-8</td>
<td>triazophos (ISO)</td>
<td>2.8 mg/m³</td>
</tr>
<tr>
<td>950-10-7</td>
<td>mephosfolan (ISO)</td>
<td>9 mg/m³</td>
</tr>
</tbody>
</table>

- PAC-3:
<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>acetonitrile</td>
<td>150 ppm</td>
</tr>
<tr>
<td>115-90-2</td>
<td>fensulfothion (ISO)</td>
<td>3.1 mg/m³</td>
</tr>
<tr>
<td>3689-24-5</td>
<td>sulfotep (ISO)</td>
<td>35 mg/m³</td>
</tr>
<tr>
<td>13194-48-4</td>
<td>ethoprophos (ISO)</td>
<td>9.3 mg/m³</td>
</tr>
<tr>
<td>7786-34-7</td>
<td>mevinphos (ISO)</td>
<td>40 mg/m³</td>
</tr>
<tr>
<td>13071-79-9</td>
<td>S-tert-butylthiomethyl O,O-diethylphosphorodithioate</td>
<td>2.2 mg/m³</td>
</tr>
<tr>
<td>24017-47-8</td>
<td>triazophos (ISO)</td>
<td>12 mg/m³</td>
</tr>
<tr>
<td>950-10-7</td>
<td>mephosfolan (ISO)</td>
<td>54 mg/m³</td>
</tr>
</tbody>
</table>

### 7 Handling and storage

- **Handling:**
  - **Precautions for safe handling:** No special precautions are necessary if used correctly.
  - **Information about protection against explosions and fires:**
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.

- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

#### 75-05-8 acetonitrile

- **PEL**
  - Long-term value: 70 mg/m³, 40 ppm
- **REL**
  - Long-term value: 34 mg/m³, 20 ppm
- **TLV**
  - Long-term value: 34 mg/m³, 20 ppm

- **Skin**

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.

- **Breathing equipment:**
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed. Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours

- **Eye protection:**

  Tightly sealed goggles

### 9 Physical and chemical properties

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

  - **General Information**
    - **Appearance:**
      - **Form:** Fluid
      - **Color:** Colorless
    - **Odor:** Aromatic
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.

  - **Change in condition**
    - **Melting point/Melting range:** -46 °C (-50.8 °F)
    - **Boiling point/Boiling range:** 81 °C (177.8 °F)
  - **Flash point:** 2 °C (35.6 °F)

  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** 525 °C (977 °F)
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not selfigniting.
47.1.11

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:
  Lower: 4.4 Vol %
  Upper: 16 Vol %

· Vapor pressure at 20 °C (68 °F): 0 hPa (0 mm Hg)

· Density at 20 °C (68 °F): 0.786 g/cm³ (6.55917 lbs/gal)
  · Relative density: Not determined.
  · Vapor density: Not determined.
  · Evaporation rate: Not determined.

· Solubility in / Miscibility with
  Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:
  Dynamic at 20 °C (68 °F): 0.39 mPas
  Kinematic: Not determined.

· Solvent content:
  Organic solvents: 0.1 %
  VOC content:
    0.05 %
    0.5 g/l / 0.00 lb/gal

· Solids content: 0.1 %

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity: No further relevant information available.
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

* 11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
· LD/LC50 values that are relevant for classification:

  ATE (Acute Toxicity Estimate)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>1,324 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2,006 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>3,597 mg/L (mouse)</td>
</tr>
</tbody>
</table>

(Contd. on page 7)
### Trade name: Pesticide Standard 2

<table>
<thead>
<tr>
<th>Chemicals</th>
<th>Routes of Exposure</th>
<th>Oral LD50</th>
<th>Sub-chronic LD50</th>
<th>Inhalative LC50/4h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>75-05-8 acetonitrile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>1,320 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>3,587 mg/L (mouse)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>13593-03-8 quinalphos (ISO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>26 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>300 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>330 mg/L (mouse)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3689-24-5 sulfortep (ISO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>5 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>20 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>38 mg/L (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7786-34-7 mevinphos (ISO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>3 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>4 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>4.5 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>31218-83-4 trans-isopropyl-3-[[ethylamino]-methoxyfosfinothiyl]oxy]crotonate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>564 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>690 mg/L (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>24017-47-8 triazophos (ISO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>57 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>1,100 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>28 mg/L (rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

**Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Harmful**
- **Irritant**

**Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**
  - None of the ingredients is listed.
- **NTP (National Toxicology Program)**
  - None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
  - None of the ingredients is listed.
Trade name: Pesticide Standard 2

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    - Water hazard class 2 (Self-assessment): hazardous for water
    - Do not allow product to reach ground water, water course or sewage system.
    - Danger to drinking water if even small quantities leak into the ground.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: UN1648

- UN proper shipping name
  - DOT: Acetonitrile solution
  - IMDG: ACETONITRILE solution, MARINE POLLUTANT
  - IATA: ACETONITRILE solution

- Transport hazard class(es)
  - DOT
    - Class: 3 Flammable liquids
### Trade name: Pesticide Standard 2

| **Label** | 3 |
| **IMDG** |
| **Class** | 3 Flammable liquids |
| **Label** | 3 |
| **IATA** |
| **Class** | 3 Flammable liquids |
| **Label** | 3 |
| **Packing group** |
| **DOT, IMDG, IATA** | II |
| **Environmental hazards:** |
| **Product contains environmentally hazardous substances:** methacrifos (ISO), quinalphos (ISO) |
| **Marine pollutant:** |
| **Symbol (fish and tree)** |
| **Special precautions for user** |
| **Warning:** Flammable liquids |
| **Danger code (Kemler):** | 33 |
| **EMS Number:** | F-E,S-D |
| **Stowage Category** | B |
| **Stowage Code** | SW2 Clear of living quarters. |
| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |
| **Transport/Additional information:** |
| **DOT** |
| **Quantity limitations** |
| On passenger aircraft/rail: 5 L |
| On cargo aircraft only: 60 L |
| **IMDG** |
| **Limited quantities (LQ)** |
| 1L |
| **Code: E2** |
| **Excepted quantities (EQ)** |
| Maximum net quantity per inner packaging: 30 ml |
| Maximum net quantity per outer packaging: 500 ml |
| **UN "Model Regulation":** |
| UN 1648 ACETONITRILE SOLUTION, 3, II, ENVIRONMENTALLY HAZARDOUS |

(Contd. on page 10)
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  
  **Sara**
  
  - Section 355 (extremely hazardous substances):
    
    - 115-90-2 fensulfothion (ISO)
    - 3689-24-5 sulfotep (ISO)
    - 13194-48-4 ethoprophos (ISO)
    - 7786-34-7 mevinphos (ISO)
    - 13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate
    - 24017-47-8 triazophos (ISO)
    - 950-10-7 mephosfolan (ISO)
  
  - Section 313 (Specific toxic chemical listings):
    
    - 75-05-8 acetonitrile
    - 29232-93-7 pirimiphos-methyl (ISO)
    - 13194-48-4 ethoprophos (ISO)
    - 19666-30-9 3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3H)-one
    - 7786-34-7 mevinphos (ISO)
    - 31218-83-4 trans-isopropyl-3-[(ethylamino)-methoxyfosfinothioyl]oxy]crotonate
  
  - TSCA (Toxic Substances Control Act):
    
    - 75-05-8 acetonitrile
    - 950-10-7 mephosfolan (ISO)
  
  - Proposition 65
    
    - Chemicals known to cause cancer:
      
      - 13194-48-4 ethoprophos (ISO)
      - 19666-30-9 3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3H)-one
      - 23103-98-2 pirimicarb
    
    - Chemicals known to cause reproductive toxicity for females:
      
      None of the ingredients is listed.
    
    - Chemicals known to cause reproductive toxicity for males:
      
      None of the ingredients is listed.
  
  - Chemicals known to cause developmental toxicity:
    
    - 19666-30-9 3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3H)-one
  
  - Carcinogenic categories
    
    - EPA (Environmental Protection Agency)
      
      - 75-05-8 acetonitrile CBD, D
      - 311-45-5 paraoxon D
    
    - TLV (Threshold Limit Value established by ACGIH)
      
      - 75-05-8 acetonitrile A4
      - 115-90-2 fensulfothion (ISO) A4
      - 3689-24-5 sulfotep (ISO) A4

(Contd. on page 11)
Trade name: Pesticide Standard 2

7786-34-7 mevinphos (ISO)

· NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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.

· Date of preparation / last revision 10/08/2018 / 3
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LCS0: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  Flam. Liq. 2: Flammable liquids – Category 2
  Acute Tox. 4: Acute toxicity – Category 4
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

* Data compared to the previous version altered.
**1 Identification**

- **Product identifier**
- **Trade name:** Pesticide Standard 3
- **Part number:** AGI-P03-3
- **Application of the substance / the mixture**
  - Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    - Agilent Technologies, Inc.
    - 5301 Stevens Creek Blvd.
    - Santa Clara, CA  95051  USA
- **Information department:**
  - Telephone: 800-227-9770
  - e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:**
  - CHEMTREC®:  1-800-424-9300

**2 Hazard(s) identification**

- **Classification of the substance or mixture**
  - GHS02 Flame
  - Flam. Liq. 2  H225  Highly flammable liquid and vapor.
  - GHS07
  - Acute Tox. 4  H302  Harmful if swallowed.
  - Eye Irrit. 2A  H319  Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02  GHS07

- **Signal word**
  - Danger

- **Hazard-determining components of labeling:**
  - acetonitrile

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Harmful if swallowed.
  - Causes serious eye irritation.

- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
47.1.11

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)

Health = 2
Fire = 3
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 2 Health = 2
FIRE 3 Fire = 3
REACTIVITY 0 Reactivity = 0

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>99.708%</td>
</tr>
</tbody>
</table>

4 First-aid measures

· Description of first aid measures
· General information:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately rinse with water.
· After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
5 Fire-fighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture**
  - No further relevant information available.

- **Advice for firefighters**
  - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
  - Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

<table>
<thead>
<tr>
<th>PAC</th>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAC-1: 75-05-8 acetonitrile</td>
<td>13 ppm</td>
<td></td>
</tr>
<tr>
<td>PAC-2: 75-05-8 acetonitrile</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>PAC-3: 75-05-8 acetonitrile</td>
<td>150 ppm</td>
<td></td>
</tr>
</tbody>
</table>

7 Handling and storage

- **Handling:**
  - **Precautions for safe handling**
    - No special precautions are necessary if used correctly.

- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
47.1.11

· Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  Keep receptacle tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
· Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit values</th>
</tr>
</thead>
</table>
| 75-05-8 acetonitrile | PEL Long-term value: 70 mg/m³, 40 ppm  
|                | REL Long-term value: 34 mg/m³, 20 ppm  
|                | TLV Long-term value: 34 mg/m³, 20 ppm  
|                | Skin Long-term value: 34 mg/m³, 20 ppm  |

· Additional information: The lists that were valid during the creation were used as basis.
· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.
· Breathing equipment:
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
· Protection of hands:
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.
· Material of gloves
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness
· Penetration time of glove material
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Color:** Colorless
    - **Odor:** Aromatic
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** -46 °C (-50.8 °F)
  - **Boiling point/Boiling range:** 81 °C (177.8 °F)
  - **Flash point:** 2 °C (35.6 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 525 °C (977 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - **Lower:** 4.4 Vol %
  - **Upper:** 16 Vol %
- **Vapor pressure at 20 °C (68 °F):** 0 hPa (0 mm Hg)
- **Density at 20 °C (68 °F):** 0.786 g/cm³ (6.55917 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
  - **Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - **Dynamic at 20 °C (68 °F):** 0.39 mPas
  - **Kinematic:** Not determined.
10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
  - **Possibility of hazardous reactions** No dangerous reactions known.
  - **Conditions to avoid** No further relevant information available.
  - **Incompatible materials:** No further relevant information available.
  - **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

  - **LD/LC50 values that are relevant for classification:**
    - ATE (Acute Toxicity Estimate)
      - Oral LD50 1,324 mg/kg (rat)
      - Dermal LD50 >2,006 mg/kg (rabbit)
      - Inhalative LC50/4 h 3,598 mg/L (mouse)

    - 75-05-8 acetonitrile
      - Oral LD50 1,320 mg/kg (rat)
      - Dermal LD50 >2,000 mg/kg (rabbit)
      - Inhalative LC50/4 h 3,587 mg/L (mouse)

    - 96489-71-3 2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one
      - Oral LD50 205 mg/kg (mouse)
      - Dermal LD50 >2,000 mg/kg (rabbit)
      - Inhalative LC50/4 h 620 mg/L (rat)

    - 52918-63-5 deltamethrin (ISO)
      - Oral LD50 9.36 mg/kg (rat)
      - Dermal LD50 2,000 mg/kg (rabbit)

    - 82657-04-3 bifenthrin
      - Oral LD50 55 mg/kg (rat)
      - Dermal LD50 >2,000 mg/kg (rabbit)

    - 15972-60-8 alachlor (ISO)
      - Oral LD50 930 mg/kg (rat)

(Contd. on page 7)
### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.

- **Additional ecological information:**
  - **General notes:**
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: UN1648

- UN proper shipping name
  - DOT: Acetonitrile solution
  - IMDG: ACETONITRILE solution, MARINE POLLUTANT
  - IATA: ACETONITRILE solution

- Transport hazard class(es)
  - DOT
    - Class: 3 Flammable liquids
    - Label: 3

  - IMDG
    - Class: 3 Flammable liquids
    - Label: 3

  - IATA
    - Class: 3 Flammable liquids
    - Label: 3

- Packing group
  - DOT, IMDG, IATA: II

- Environmental hazards:
  - Product contains environmentally hazardous substances: bifenthrin, 2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one

- Marine pollutant:
  - Symbol (fish and tree)

- Special precautions for user
  - Warning: Flammable liquids
Trade name: Pesticide Standard 3

- Danger code (Kemler): 33
- EMS Number: F-E,S-D
- Stowage Category: B
- Stowage Code: SW2 Clear of living quarters.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

- Transport/Additional information:
  - DOT
    - Quantity limitations
      - On passenger aircraft/rail: 5 L
      - On cargo aircraft only: 60 L
  - IMDG
    - Limited quantities (LQ): 1L
    - Excepted quantities (EQ): Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml

- UN "Model Regulation": UN 1648 ACETONITRILE SOLUTION, 3, II,
  ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

  - Section 313 (Specific toxic chemical listings):
    75-05-8 acetonitrile
    82657-04-3 bifenthrin
    15972-60-8 alachlor (ISO)
    60168-88-9 fenarimol (ISO)
    51235-04-2 3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione
    21087-64-9 metribuzin (ISO)
    2212-67-1 molinate (ISO)
    42874-03-3 oxyfluorfen
    50471-44-8 vinclozolin (ISO)
    2303-17-5 tri-allate (ISO)
    7696-12-0 tetramethrin

- TSCA (Toxic Substances Control Act):
  75-05-8 acetonitrile
  584-79-2 allethrin
  60168-88-9 fenarimol (ISO)
  51235-04-2 3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione
Trade name: Pesticide Standard 3

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - 143390-89-0 kresoxim-methyl (ISO)
    - 34256-82-1 2-chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide
    - 15972-60-8 alachlor (ISO)
    - 50471-44-8 vinclozolin (ISO)
  - **Chemicals known to cause reproductive toxicity for females:**
    - 6190-65-4 1,3,5-triazine-2,4-diamine, 6-chloro-N2-(1-methylethyl)-
    - 2212-67-1 molinate (ISO)
  - **Chemicals known to cause reproductive toxicity for males:**
    - 2212-67-1 molinate (ISO)
  - **Chemicals known to cause developmental toxicity:**
    - 6190-65-4 1,3,5-triazine-2,4-diamine, 6-chloro-N2-(1-methylethyl)-
    - 2212-67-1 molinate (ISO)
    - 50471-44-8 vinclozolin (ISO)
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)**
      - 75-05-8 acetonitrile CBD, D
      - 21087-64-9 metribuzin (ISO) D
    - **TLV (Threshold Limit Value established by ACGIH)**
      - 75-05-8 acetonitrile A4
      - 15972-60-8 alachlor (ISO) A3
      - 21087-64-9 metribuzin (ISO) A4
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
      - None of the ingredients is listed.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

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.

- **Date of preparation / last revision** 10/08/2018 / 3
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
Trade name: Pesticide Standard 3

PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

* Data compared to the previous version altered.
1 Identification

· Product identifier
· Trade name: Pesticide Standard 4
· Part number: AGI-P03-4
· Application of the substance / the mixture Reagents and Standards for Analytical Chemical Laboratory Use
· Details of the supplier of the safety data sheet
· Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA
· Information department:
  Telephone: 800-227-9770
e-mail: pdl-msds_author@agilent.com
· Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

· Classification of the substance or mixture
  GHS02 Flame
  Flam. Liq. 2  H225  Highly flammable liquid and vapor.
  GHS07
  Acute Tox. 4  H302  Harmful if swallowed.
  Eye Irrit. 2A  H319  Causes serious eye irritation.

· Label elements
  · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms
    GHS02  GHS07

· Signal word Danger
· Hazard-determining components of labeling:
  acetonitrile
· Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed.
  Causes serious eye irritation.
· Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces.  -  No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
Trade name: Pesticide Standard 4

(Contd. of page 1)

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)
  2 Health
  3 Fire
  0 Reactivity

· HMIS-ratings (scale 0 - 4)
  HEALTH 2 Health
  FIRE 3 Fire
  REACTIVITY 0 Reactivity

· Other hazards
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:
  75-05-8 acetonitrile 99.822%

4 First-aid measures

· Description of first aid measures
· General information:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately rinse with water.
· After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

(Contd. on page 3)
Trade name: Pesticide Standard 4

· **After swallowing:** Immediately call a doctor.
· **Information for doctor:**
  · **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  · **Indication of any immediate medical attention and special treatment needed**
    No further relevant information available.

---

**5 Fire-fighting measures**

· **Extinguishing media**
  · **Suitable extinguishing agents:**
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  · **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
  · **Protective equipment:** No special measures required.

---

**6 Accidental release measures**

· **Personal precautions, protective equipment and emergency procedures**
  Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
· **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
· **Protective Action Criteria for Chemicals**

| PAC-1: | | | |
| --- | --- | --- |
| 75-05-8 | acetonitrile | 13 ppm |
| 118-74-1 | hexachlorobenzene | 0.006 mg/m³ |
| 72-20-8 | endrin (ISO) | 1.8 mg/m³ |

| PAC-2: | | | |
| --- | --- | --- |
| 75-05-8 | acetonitrile | 50 ppm |
| 118-74-1 | hexachlorobenzene | 14 mg/m³ |
| 72-20-8 | endrin (ISO) | 20 mg/m³ |

| PAC-3: | | | |
| --- | --- | --- |
| 75-05-8 | acetonitrile | 150 ppm |
| 118-74-1 | hexachlorobenzene | 91 mg/m³ |
| 72-20-8 | endrin (ISO) | 2,000 mg/m³ |
7 Handling and storage

· Handling:
· Precautions for safe handling: No special precautions are necessary if used correctly.
· Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.
· Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles: Store in a cool location.
  · Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  Keep receptacle tightly sealed.
  Store in cool, dry conditions in well sealed receptacles.
· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>75-05-8 acetonitrile</strong></td>
</tr>
<tr>
<td>PEL Long-term value: 70 mg/m³, 40 ppm</td>
</tr>
<tr>
<td>REL Long-term value: 34 mg/m³, 20 ppm</td>
</tr>
<tr>
<td>TLV Long-term value: 34 mg/m³, 20 ppm</td>
</tr>
<tr>
<td>Skin</td>
</tr>
</tbody>
</table>

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.
· Breathing equipment:
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
· Protection of hands:
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.
Trade name: Pesticide Standard 4

- Material of gloves
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness
- Penetration time of glove material
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours
- Eye protection:
  Tightly sealed goggles

## 9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Fluid
    - Color: Colorless
    - Odor: Aromatic
    - Odor threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: -46 °C (-50.8 °F)
  - Boiling point/Boiling range: 81 °C (177.8 °F)
- Flash point: 2 °C (35.6 °F)
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 525 °C (977 °F)
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- Explosion limits:
  - Lower: 4.4 Vol %
  - Upper: 16 Vol %
- Vapor pressure at 20 °C (68 °F): 0 hPa (0 mm Hg)
- Density at 20 °C (68 °F): 0.786 g/cm³ (6.55917 lbs/gal)
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with Water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**: No decomposition if used according to specifications.
- **Thermal decomposition / conditions to be avoided**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:
  - **LD/LC50 values that are relevant for classification**:  
    ATE (Acute Toxicity Estimate)
    
    | Route  | LD50    | LC50/4 h |
    |--------|---------|----------|
    | Oral   | 1,322 mg/kg (rat) | 3,593 mg/L (mouse) |
    | Dermal | >2,004 mg/kg (rabbit) |       |
    | Inhalative |       |          |

- **75-05-8 acetonitrile**
  - **Oral**
    - LD50: 1,320 mg/kg (rat)
  - **Dermal**
    - LD50: >2,000 mg/kg (rabbit)
  - **Inhalative**
    - LC50/4 h: 3,587 mg/L (mouse)

- **Primary irritant effect**:
  - **on the skin**: No irritant effect.
  - **on the eye**: Irritating effect.
  - **Sensitization**: No sensitizing effects known.
  - **Additional toxicological information**:
    The product shows the following dangers according to internally approved calculation methods for preparations:
    - Harmful
    - Irritant
Trade name: Pesticide Standard 4

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    115-32-2 dicofol (ISO) 3
    118-74-1 hexachlorobenzene
    72-20-8 endrin (ISO) 3
  - NTP (National Toxicology Program)
    118-74-1 hexachlorobenzene R
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
  - Additional ecological information:
  - General notes:
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: UN1648
- UN proper shipping name
  - DOT: Acetonitrile solution
  - IMDG, IATA: ACETONITRILE solution

(Contd. on page 8)
### Transport hazard class(es)
- **DOT**
  - Class: 3 Flammable liquids
  - Label: 3

- **IMDG, IATA**
  - Class: 3 Flammable liquids
  - Label: 3

### Packing group
- DOT, IMDG, IATA: II

### Environmental hazards:
Not applicable.

### Special precautions for user
- Warning: Flammable liquids
- Danger code (Kemler): 33
- EMS Number: F-E,S-D
- Stowage Category: B
- Stowage Code: SW2 Clear of living quarters.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

### Transport/Additional information:
- **DOT**
  - Quantity limitations:
    - On passenger aircraft/rail: 5 L
    - On cargo aircraft only: 60 L

- **IMDG**
  - Limited quantities (LQ): 1L
  - Excepted quantities (EQ):
    - Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

### UN "Model Regulation":
UN 1648 ACETONITRILE SOLUTION, 3, II

### 15 Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture
- **Sara**

#### Section 355 (extremely hazardous substances):
- 72-20-8 endrin (ISO)
Trade name: Pesticide Standard 4

- **Section 313 (Specific toxic chemical listings):**
  - 75-05-8 acetonitrile
  - 28249-77-6 S-4-chlorobenzyl diethylthiocarbamate
  - 115-32-2 dicofol (ISO)
  - 118-74-1 hexachlorobenzene
  - 314-40-9 bromacil
  - 1134-23-2 cycloate

- **TSCA (Toxic Substances Control Act):**
  - 75-05-8 acetonitrile
  - 118-74-1 hexachlorobenzene
  - 139-40-2 propazine

- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - 118-74-1 hexachlorobenzene
  - **Chemicals known to cause reproductive toxicity for females:**
    - 139-40-2 propazine
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  - 118-74-1 hexachlorobenzene
  - 1134-23-2 cycloate
  - 72-20-8 endrin (ISO)
  - 139-40-2 propazine

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency):**
    - 75-05-8 acetonitrile CBD, D
    - 118-74-1 hexachlorobenzene B2
    - 72-20-8 endrin (ISO) D
  - **TLV (Threshold Limit Value established by ACGIH):**
    - 75-05-8 acetonitrile A4
    - 118-74-1 hexachlorobenzene A3
    - 314-40-9 bromacil A3
    - 72-20-8 endrin (ISO) A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

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.

- **Date of preparation / last revision** 10/08/2018 / 3

(Contd. on page 10)
 Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
* Data compared to the previous version altered.
1 Identification

- **Product identifier**
- **Trade name:** Pesticide Standard 5
- **Part number:** AGI-P03-5
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA
- **Information department:**
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
  Flam. Liq. 2  H225  Highly flammable liquid and vapor.
  - GHS07
  Acute Tox. 4  H302  Harmful if swallowed.
  Eye Irrit. 2A  H319  Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
  - GHS02  GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - acetonitrile

- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Harmful if swallowed.
  - Causes serious eye irritation.

- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
Trade name: Pesticide Standard 5

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)

Health = 2
Fire = 3
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 2 Health = 2
FIRE 3 Fire = 3
REACTIVITY 0 Reactivity = 0

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>99.746%</td>
</tr>
</tbody>
</table>

4 First-aid measures

· Description of first aid measures
· General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately rinse with water.
· After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
47.1.11

· After swallowing: Immediately call a doctor.
· Information for doctor:
· Most important symptoms and effects, both acute and delayed: No further relevant information available.
· Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

· Extinguishing media
· Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· For safety reasons unsuitable extinguishing agents: Water with full jet
· Special hazards arising from the substance or mixture: No further relevant information available.
· Advice for firefighters
· Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions: Do not allow to enter sewers/surface or ground water.
· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
· Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1:</th>
<th>75-05-8 acetonitrile</th>
<th>13 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-51-5 dimethoate (ISO)</td>
<td>2.7 mg/m³</td>
</tr>
<tr>
<td></td>
<td>114-26-1 propoxur (ISO)</td>
<td>1.5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>55-38-9 fenthion (ISO)</td>
<td>0.15 mg/m³</td>
</tr>
<tr>
<td></td>
<td>62-73-7 dichlorvos (ISO)</td>
<td>1.8 mg/m³</td>
</tr>
<tr>
<td></td>
<td>78-34-2 dioxathion (ISO)</td>
<td>0.31 mg/m³</td>
</tr>
<tr>
<td></td>
<td>2540-82-1 formothion (ISO)</td>
<td>2.1 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2:</th>
<th>75-05-8 acetonitrile</th>
<th>50 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-51-5 dimethoate (ISO)</td>
<td>30 mg/m³</td>
</tr>
<tr>
<td></td>
<td>114-26-1 propoxur (ISO)</td>
<td>6.7 mg/m³</td>
</tr>
<tr>
<td></td>
<td>55-38-9 fenthion (ISO)</td>
<td>5.9 mg/m³</td>
</tr>
<tr>
<td></td>
<td>62-73-7 dichlorvos (ISO)</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td></td>
<td>78-34-2 dioxathion (ISO)</td>
<td>3.4 mg/m³</td>
</tr>
<tr>
<td></td>
<td>2540-82-1 formothion (ISO)</td>
<td>24 mg/m³</td>
</tr>
</tbody>
</table>
Trade name: Pesticide Standard 5

7 Handling and storage

- Handling:
  - Precautions for safe handling: No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
  - Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: Store in a cool location.
    - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
  - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Compound</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>PEL: 150 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 170 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TLV: 170 mg/m³</td>
</tr>
<tr>
<td>60-51-5 dimethoate (ISO)</td>
<td>PEL: 60 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 80 mg/m³</td>
</tr>
<tr>
<td>114-26-1 propoxur (ISO)</td>
<td>PEL: 40 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 30 mg/m³</td>
</tr>
<tr>
<td>55-38-9 fenthion (ISO)</td>
<td>PEL: 35 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 25 mg/m³</td>
</tr>
<tr>
<td>62-73-7 dichlorvos (ISO)</td>
<td>PEL: 200 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 150 mg/m³</td>
</tr>
<tr>
<td>78-34-2 dioxathion (ISO)</td>
<td>PEL: 39 ppm</td>
</tr>
<tr>
<td></td>
<td>REL: 25 mg/m³</td>
</tr>
<tr>
<td>2540-82-1 formothion (ISO)</td>
<td>PEL: 140 mg/m³</td>
</tr>
<tr>
<td></td>
<td>REL: 100 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TLV: 100 mg/m³</td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes.
    Avoid contact with the eyes and skin.
· Breathing equipment:
When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

· Protection of hands:
Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

· Material of gloves
For normal use: nitrile rubber, 11-13 mil thickness
For direct contact with the chemical: butyl rubber, 12-15 mil thickness

· Penetration time of glove material
For normal use: nitrile rubber: 1 hour
For direct contact with the chemical: butyl rubber: >4 hours

· Eye protection:
Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  · Form: Fluid
  · Color: Colorless
· Odor: Aromatic
· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition
  · Melting point/Melting range: -46 °C (-50.8 °F)
  · Boiling point/Boiling range: 81 °C (177.8 °F)

· Flash point: 2 °C (35.6 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 525 °C (977 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:
  · Lower: 4.4 Vol %
Safety Data Sheet
acc. to OSHA HCS

Trade name: Pesticide Standard 5

47.1.11

Upper:
16 Vol %

- **Vapor pressure at 20 °C (68 °F):** 0 hPa (0 mm Hg)
- **Density at 20 °C (68 °F):** 0.786 g/cm³ (6.55917 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - **Dynamic at 20 °C (68 °F):** 0.39 mPas
  - **Kinematic:** Not determined.

- **Solvent content:**
  - **Organic solvents:** 0.0 %
  - **VOC content:** 0.04 %
  - 0.4 g/l / 0.00 lb/gal

- **Solids content:** 0.2 %

- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

  - **LD/LC50 values that are relevant for classification:**

    **ATE (Acute Toxicity Estimate)**
    - Oral LD50 1,323 mg/kg (rat)
    - Dermal LD50 >2,005 mg/kg (rabbit)
    - Inhalative LC50/4 h 3,596 mg/L (mouse)

    75-05-8 acetonitrile
    - Oral LD50 1,320 mg/kg (rat)
    - Dermal LD50 >2,000 mg/kg (rabbit)
    - Inhalative LC50/4 h 3,587 mg/L (mouse)
### Safety Data Sheet

Acc. to OSHA HCS

Printing date 10/08/2018  Reviewed on 10/08/2018

**Trade name: Pesticide Standard 5**

(Contd. of page 6)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-38-9 fenthion (ISO)</td>
<td>180 mg/kg</td>
<td>330 mg/kg</td>
<td>800 mg/L</td>
</tr>
<tr>
<td>74070-46-5 2-chloro-6-nitro-3-phenoxyaniline</td>
<td>&gt;6,500 mg/kg</td>
<td>&gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>2104-96-3 bromophos (ISO)</td>
<td>1,600 mg/kg</td>
<td>2,181 mg/kg</td>
<td>2,181 mg/kg (rabbit)</td>
</tr>
<tr>
<td>62-73-7 dichlorvos (ISO)</td>
<td>25 mg/kg</td>
<td>107 mg/kg</td>
<td>15 mg/L</td>
</tr>
<tr>
<td>78-34-2 dioxathion (ISO)</td>
<td>23 mg/kg</td>
<td>63 mg/kg</td>
<td>1,398 mg/L (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    - The product shows the following dangers according to internally approved calculation methods for preparations:
      - **Harmful**
      - **Irritant**

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 51630-58-1 fenvalerate 3
    - 62-73-7 dichlorvos (ISO) 2B
  - **NTP (National Toxicology Program)**
    - None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.

(Contd. on page 8)
Trade name: Pesticide Standard 5

- **Behavior in environmental systems:**
  - **Bioaccumulative potential**: No further relevant information available.
  - **Mobility in soil**: No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - **Results of PBT and vPvB assessment**
    - **PBT**: Not applicable.
    - **vPvB**: Not applicable.
  - **Other adverse effects**: No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
  - **Recommendation**: Disposal must be made according to official regulations.

### 14 Transport information

<table>
<thead>
<tr>
<th>DOT, IMDG, IATA</th>
<th>UN1648</th>
</tr>
</thead>
</table>
- **UN proper shipping name**
- **DOT**
- **IMDG**
- **IATA**

- **Transport hazard class(es)**
  - **DOT**
    - **Class**: 3 Flammable liquids
    - **Label**: 3
  - **IMDG**
    - **Class**: 3 Flammable liquids
Trade name: Pesticide Standard 5

- **Label**
  - 3
- **IATA**

- **Class**
  - 3 Flammable liquids
- **Label**
  - 3

- **Packing group**
  - DOT, IMDG, IATA
    - II

- **Environmental hazards:**
  - Product contains environmentally hazardous substances: 2-chloro-6-nitro-3-phenoxyaniline, dioxathion (ISO)
- **Marine pollutant:**
  - Symbol (fish and tree)

- **Special precautions for user**
  - Warning: Flammable liquids
- **Danger code (Kemler):**
  - 33
- **EMS Number:**
  - F-E,S-D
- **Stowage Category**
  - B
- **Stowage Code**
  - SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - **DOT**
    - Quantity limitations:
      - On passenger aircraft/rail: 5 L
      - On cargo aircraft only: 60 L
  - **IMDG**
    - Limited quantities (LQ): 1L
    - Excepted quantities (EQ): Code: E2
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 500 ml
  - **UN "Model Regulation":**
    - UN 1648 ACETONITRILE SOLUTION, 3, II, ENVIRONMENTALLY HAZARDOUS

---

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - Section 355 (extremely hazardous substances):
    - 60-51-5 dimethoate (ISO)
    - 62-73-7 dichlorvos (ISO)
    - 78-34-2 dioxathion (ISO)
    - 2540-82-1 formothion (ISO)
  - Section 313 (Specific toxic chemical listings):
    - 75-05-8 acetonitrile

(Contd. on page 10)
### Trade name: Pesticide Standard 5

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name (ISO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-51-5</td>
<td>dimethoate (ISO)</td>
</tr>
<tr>
<td>114-26-1</td>
<td>propoxur (ISO)</td>
</tr>
<tr>
<td>51630-58-1</td>
<td>fenvalerate</td>
</tr>
<tr>
<td>55-38-9</td>
<td>fenthion (ISO)</td>
</tr>
<tr>
<td>62-73-7</td>
<td>dichlorvos (ISO)</td>
</tr>
</tbody>
</table>

#### TSCA (Toxic Substances Control Act):
- 75-05-8 acetonitrile
- 60-51-5 dimethoate (ISO)
- 2631-40-5 isoprocarb (ISO)
- 62-73-7 dichlorvos (ISO)

#### Proposition 65
- **Chemicals known to cause cancer:**
  - 114-26-1 propoxur (ISO)
  - 62-73-7 dichlorvos (ISO)

- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**
  None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  None of the ingredients is listed.

#### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  - 75-05-8 acetonitrile | CBD, D
  - 62-73-7 dichlorvos (ISO) | B2

- **TLV (Threshold Limit Value established by ACGIH)**
  - 75-05-8 acetonitrile | A4
  - 114-26-1 propoxur (ISO) | A3
  - 55-38-9 fenthion (ISO) | A4
  - 62-73-7 dichlorvos (ISO) | A4
  - 78-34-2 dioxathion (ISO) | A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

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.

- **Date of preparation / last revision** 10/08/2018 / 3
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
**Trade name: Pesticide Standard 5**

DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Acute Tox. 4: Acute toxicity – Category 4  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

* Data compared to the previous version altered.
1 Identification

- Product identifier
- Trade name: Pesticide Standard 6
- Part number: AGI-P03-6
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA
- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- Classification of the substance or mixture

  GHS02 Flame
  Flam. Liq. 2  H225  Highly flammable liquid and vapor.

  GHS07
  Acute Tox. 4  H302  Harmful if swallowed.
  Eye Irrit. 2A  H319  Causes serious eye irritation.

- Label elements
- GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms

  GHS02  GHS07

- Signal word: Danger

- Hazard-determining components of labeling:
  acetonitrile

- Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed.
  Causes serious eye irritation.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
**Trade name:** Pesticide Standard 6

- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Call a poison center/doctor if you feel unwell.
- Rinse mouth.
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- In case of fire: Use for extinction: CO2, powder or water spray.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**
  - Health = 2
  - Fire = 3
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - HEALTH 2: Health = 2
  - FIRE 3: Fire = 3
  - REACTIVITY 0: Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

---

**3 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**
  - 75-05-8 acetonitrile 99.644%

---

**4 First-aid measures**

- **Description of first aid measures**
- **General information:**
  - Immediately remove any clothing soiled by the product.
  - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

(Contd. on page 3)
47.1.11 After swallowing: Immediately call a doctor.
   Information for doctor:
   Most important symptoms and effects, both acute and delayed: No further relevant information available.
   Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: Water with full jet

- Special hazards arising from the substance or mixture: No further relevant information available.

- Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.

- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

- Protective Action Criteria for Chemicals

  PAC-1:
  | 75-05-8 acetonitrile   | 13 ppm         |
  | 297-97-2 O,O-diethyl O-pyrazin-2-yl phosphorothioate | 0.32 mg/m³     |
  | 470-90-6 chlorfenvinphos (ISO) | 0.91 mg/m³     |
  | 327-98-0 trichloronate (ISO) | 0.91 mg/m³   |
  | 563-12-2 ethion (ISO) | 1.2 mg/m³     |
  | 121-75-5 malathion (ISO) | 15 mg/m³      |
  | 141-66-2 (E)-3-(dimethylamino)-1-methyl-3-oxoprop-1-enyl dimethyl phosphate | 0.15 mg/m³|
  | 950-37-8 methidathion | 1.8 mg/m³     |
  | 23505-41-1 pirimiphos-ethyl (ISO) | 2.3 mg/m³ |

  PAC-2:
  | 75-05-8 acetonitrile   | 50 ppm         |
  | 297-97-2 O,O-diethyl O-pyrazin-2-yl phosphorothioate | 3.5 mg/m³     |
  | 470-90-6 chlorfenvinphos (ISO) | 10 mg/m³     |
  | 327-98-0 trichloronate (ISO) | 10 mg/m³     |
  | 563-12-2 ethion (ISO) | 13 mg/m³      |
Trade name: Pesticide Standard 6

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
  - **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>Component ID</th>
<th>Description</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>acetonitrile</td>
<td>150 ppm</td>
</tr>
<tr>
<td>297-97-2</td>
<td>O,O-diethyl O-pyrazin-2-yl phosphorothioate</td>
<td>21 mg/m³</td>
</tr>
<tr>
<td>470-90-6</td>
<td>chlorfenvinphos (ISO)</td>
<td>500 mg/m³</td>
</tr>
<tr>
<td>327-98-0</td>
<td>trichloronate (ISO)</td>
<td>30 mg/m³</td>
</tr>
<tr>
<td>563-12-2</td>
<td>ethion (ISO)</td>
<td>38 mg/m³</td>
</tr>
<tr>
<td>121-75-5</td>
<td>malathion (ISO)</td>
<td>390 mg/m³</td>
</tr>
<tr>
<td>141-66-2</td>
<td>(E)-3-(dimethylamino)-1-methyl-3-oxoprop-1-enyl dimethyl phosphate</td>
<td>17 mg/m³</td>
</tr>
<tr>
<td>950-37-8</td>
<td>methidathion</td>
<td>160 mg/m³</td>
</tr>
<tr>
<td>23505-41-1</td>
<td>pirimiphos-ethyl (ISO)</td>
<td>28 mg/m³</td>
</tr>
</tbody>
</table>

- **Skin**

  - **Additional information:** The lists that were valid during the creation were used as basis.
47.1.11

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes.
  Avoid contact with the eyes and skin.

· Breathing equipment:
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

· Protection of hands:
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

· Material of gloves
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness

· Penetration time of glove material
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours

· Eye protection:
  Tightly sealed goggles

* 9 Physical and chemical properties

· Information on basic physical and chemical properties
· General Information
· Appearance:
  Form: Fluid
  Color: Colorless
· Odor: Aromatic
· Odor threshold: Not determined.
· pH-value: Not determined.

· Change in condition
  Melting point/Melting range: -46 °C (-50.8 °F)
  Boiling point/Boiling range: 81 °C (177.8 °F)

· Flash point: 2 °C (35.6 °F)
· Flammability (solid, gaseous): Not applicable.
### Trade name: Pesticide Standard 6

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignition temperature</td>
<td>525 °C (977 °F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion</td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>4.4 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>16 Vol %</td>
</tr>
<tr>
<td>Vapor pressure at 20 °C (68 °F)</td>
<td>0 hPa (0 mm Hg)</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F)</td>
<td>0.786 g/cm³ (6.55917 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 20 °C (68 °F):</td>
<td>0.39 mPas</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents:</td>
<td>0.1 %</td>
</tr>
<tr>
<td>VOC content</td>
<td>0.10 %</td>
</tr>
<tr>
<td></td>
<td>1.0 g/l / 0.01 lb/gal</td>
</tr>
<tr>
<td>Solids content</td>
<td>0.2 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.
### 11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimate)</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 75-05-8 acetonitrile</td>
<td>1,320 mg/kg (rat)</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
<td>3,587 mg/L (mouse)</td>
</tr>
<tr>
<td>Dermal 5598-13-0 chlorpyrifos-methyl</td>
<td>1,828 mg/kg (rat)</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
<td>&gt;670 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative 563-12-2 ethion (ISO)</td>
<td>13 mg/kg (rat)</td>
<td>62 mg/kg (rat)</td>
<td>864 mg/L (rat)</td>
</tr>
<tr>
<td>Oral 121-75-5 malathion (ISO)</td>
<td>1,000 mg/kg (rat)</td>
<td>8,790 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Dermal 38260-54-7 etrimfos</td>
<td>1,800 mg/kg (rat)</td>
<td>&gt;500 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.

- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant

- Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
<th>NTP (National Toxicology Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121-75-5 malathion (ISO)</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>333-41-5 diazinon (ISO)</td>
<td>2A</td>
</tr>
<tr>
<td>22248-79-9 tetrachlorvinphos</td>
<td>2B</td>
</tr>
</tbody>
</table>
12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- DOT, IMDG, IATA: UN1648
- UN proper shipping name
  - DOT: Acetonitrile solution
  - IMDG: ACETONITRILE solution, MARINE POLLUTANT
  - IATA: ACETONITRILE solution
- Transport hazard class(es)
  - DOT
  - Class: 3 Flammable liquids
**Trade name: Pesticide Standard 6**

| **Label** | 3 |
| **IMDG** | |
| ![IMDG Symbol] | |
| **Class** | 3 Flammable liquids |
| **Label** | 3 |
| **IATA** | |
| ![IATA Symbol] | |
| **Class** | 3 Flammable liquids |
| **Label** | 3 |
| **Packing group** | II |
| **DOT, IMDG, IATA** | |
| **Environmental hazards:** | Product contains environmentally hazardous substances: malathion (ISO), chlorpyrifos-methyl |
| **Marine pollutant:** | Symbol (fish and tree) |
| **Special precautions for user** | Warning: Flammable liquids |
| **Danger code (Kemler):** | 33 |
| **EMS Number:** | F-E,S-D |
| **Stowage Category** | B |
| **Stowage Code** | SW2 Clear of living quarters. |
| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |
| **Transport/Additional information:** | |
| **DOT** | |
| **Quantity limitations** | On passenger aircraft/rail: 5 L  On cargo aircraft only: 60 L |
| **IMDG** | |
| **Limited quantities (LQ)** | 1L  Code: E2  Maximum net quantity per inner packaging: 30 ml  Maximum net quantity per outer packaging: 500 ml |
| **Excepted quantities (EQ)** | |
| **UN "Model Regulation":** | UN 1648 ACETONITRILE SOLUTION, 3, II, ENVIRONMENTALLY HAZARDOUS |
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      - 297-97-2 \(\text{O,O-diethyl O-pyrazin-2-yl phosphorothioate}\)
      - 122-14-5 \(\text{fenitrothion (ISO)}\)
      - 470-90-6 \(\text{chlorfenvinphos (ISO)}\)
      - 327-98-0 \(\text{trichloronate (ISO)}\)
      - 563-12-2 \(\text{ethion (ISO)}\)
      - 141-66-2 \(\text{(E)-3-(dimethylamino)-1-methyl-3-oxoprop-1-enyl dimethyl phosphate)}\)
      - 950-37-8 \(\text{methidathion}\)
      - 23505-41-1 \(\text{pirimiphos-ethyl (ISO)}\)
    - Section 313 (Specific toxic chemical listings):
      - 75-05-8 \(\text{acetonitrile}\)
      - 5598-13-0 \(\text{chlorpyrifos-methyl}\)
      - 52-85-7 \(\text{famphur}\)
      - 121-75-5 \(\text{malathion (ISO)}\)
      - 333-41-5 \(\text{diazinon (ISO)}\)
      - 40487-42-1 \(\text{pendimethalin (ISO)}\)
      - 23950-58-5 \(\text{propyzamide (ISO)}\)
    - TSCA (Toxic Substances Control Act):
      - 75-05-8 \(\text{acetonitrile}\)
      - 297-97-2 \(\text{O,O-diethyl O-pyrazin-2-yl phosphorothioate}\)
      - 52-85-7 \(\text{famphur}\)
      - 333-41-5 \(\text{diazinon (ISO)}\)
      - 5915-41-3 \(\text{terbuthylazine}\)
  - Proposition 65
    - Chemicals known to cause cancer:
      - 121-75-5 \(\text{malathion (ISO)}\)
      - 23950-58-5 \(\text{propyzamide (ISO)}\)
      - 22248-79-9 \(\text{tetrachlorvinphos}\)
    - Chemicals known to cause reproductive toxicity for females:
      - None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males:
      - None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity:
      - None of the ingredients is listed.
  - Carcinogenic categories
    - EPA (Environmental Protection Agency)
      - 75-05-8 \(\text{acetonitrile}\)
Trade name: Pesticide Standard 6

(Contd. of page 10)

- **TLV (Threshold Limit Value established by ACGIH)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Chemical</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>acetonitrile</td>
<td>A4</td>
</tr>
<tr>
<td>563-12-2</td>
<td>ethion (ISO)</td>
<td>A4</td>
</tr>
<tr>
<td>299-84-3</td>
<td>fenchlorphos (ISO)</td>
<td>A4</td>
</tr>
<tr>
<td>121-75-5</td>
<td>malathion (ISO)</td>
<td>A4</td>
</tr>
<tr>
<td>333-41-5</td>
<td>diazinon (ISO)</td>
<td>A4</td>
</tr>
<tr>
<td>141-66-2</td>
<td>(E)-3-(dimethylamino)-1-methyl-3-oxoprop-1-enyl dimethyl phosphate</td>
<td>A4</td>
</tr>
</tbody>
</table>

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

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.

- **Date of preparation / last revision** 10/08/2018 / 3

- **Abbreviations and acronyms:**
  
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 4: Acute toxicity – Category 4
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

- *Data compared to the previous version altered.*
* 1 Identification

- Product identifier
- Trade name: Pesticide Standard 7
- Part number: AGI-P03-7
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA 95051 USA
- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- Classification of the substance or mixture
  
  GHS02 Flame
  
  Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  
  GHS07
  
  Acute Tox. 4 H302 Harmful if swallowed.
  Eye Irrit. 2A H319 Causes serious eye irritation.

- Label elements
  
  GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  
- Hazard pictograms
  
  GHS02 GHS07

- Signal word Danger

- Hazard-determining components of labeling:
  acetonitrile

- Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed.
  Causes serious eye irritation.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.

(Contd. on page 2)
Trade name: Pesticide Standard 7

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)

Health = 2
Fire = 3
Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 2
FIRE 3
REACTIVITY 0

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>99.657%</td>
</tr>
</tbody>
</table>

4 First-aid measures

· Description of first aid measures
· General information:
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately rinse with water.
· After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Immediately call a doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
  - Suitable extinguishing agents:
    - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - For safety reasons unsuitable extinguishing agents: Water with full jet

- **Special hazards arising from the substance or mixture**
  - No further relevant information available.

- **Advice for firefighters**
  - Protective equipment: No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**
  - Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

  **PAC-1:**
  - 75-05-8 acetonitrile: 13 ppm
  - 2642-71-9 azinphos-ethyl (ISO): 0.35 mg/m³
  - 56-72-4 coumaphos (ISO): 0.27 mg/m³
  - 2921-88-2 chlorpyrifos (ISO): 0.6 mg/m³

  **PAC-2:**
  - 75-05-8 acetonitrile: 50 ppm
  - 2642-71-9 azinphos-ethyl (ISO): 3.9 mg/m³
  - 56-72-4 coumaphos (ISO): 3 mg/m³
  - 2921-88-2 chlorpyrifos (ISO): 15 mg/m³

  **PAC-3:**
  - 75-05-8 acetonitrile: 150 ppm
  - 2642-71-9 azinphos-ethyl (ISO): 17 mg/m³
  - 56-72-4 coumaphos (ISO): 13 mg/m³

(Contd. on page 4)
Trade name: Pesticide Standard 7

7 Handling and storage

- Handling:
- Precautions for safe handling: No special precautions are necessary if used correctly.
- Information about protection against explosions and fires:
  Keep ignition sources away - Do not smoke.
  Protect against electrostatic charges.

- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: Store in a cool location.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.

- Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters

- Components with limit values that require monitoring at the workplace:
  75-05-8 acetonitrile
  - PEL: Long-term value: 70 mg/m³, 40 ppm
  - REL: Long-term value: 34 mg/m³, 20 ppm
  - TLV: Long-term value: 34 mg/m³, 20 ppm

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.
- Breathing equipment:
  - When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  - Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
- Protection of hands:
  - Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.
Trade name: Pesticide Standard 7

<table>
<thead>
<tr>
<th>Material of gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>For normal use: nitrile rubber, 11-13 mil thickness</td>
</tr>
<tr>
<td>For direct contact with the chemical: butyl rubber, 12-15 mil thickness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Penetration time of glove material</th>
</tr>
</thead>
<tbody>
<tr>
<td>For normal use: nitrile rubber: 1 hour</td>
</tr>
<tr>
<td>For direct contact with the chemical: butyl rubber: &gt;4 hours</td>
</tr>
</tbody>
</table>

**Eye protection:**
Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Color: Colorless</td>
</tr>
<tr>
<td>Odor: Aromatic</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: -46 °C (-50.8 °F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 81 °C (177.8 °F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 °C (35.6 °F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flammability (solid, gaseous):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ignition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>525 °C (977 °F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decomposition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Auto igniting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not selfigniting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Danger of explosion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower: 4.4 Vol %</td>
</tr>
<tr>
<td>Upper: 16 Vol %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vapor pressure at 20 °C (68 °F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hPa (0 mm Hg)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Density at 20 °C (68 °F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.786 g/cm³ (6.55917 lbs/gal)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vapor density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility in / Miscibility with Water:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not miscible or difficult to mix.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient (n-octanol/water):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**: No further relevant information available.
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:
  - **LD/LC50 values that are relevant for classification**: ATE (Acute Toxicity Estimate)
    
    | Test Type | LD50/DL50 | Unit       |
    |-----------|-----------|------------|
    | Oral      | 1,325 mg/kg | (rat)    |
    | Dermal    | >2,007 mg/kg | (rabbit) |
    | Inhalative| 3,599 mg/L | (mouse)  |

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetonitrile</td>
<td>1,320 mg/kg</td>
<td>&gt;2,000 mg/kg</td>
<td>3,587 mg/L (mouse)</td>
</tr>
<tr>
<td>Lambda-cyhalothrin</td>
<td>56 mg/kg</td>
<td>632 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Cyprodinil</td>
<td>2,796 mg/kg</td>
<td>&gt;2,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Azinphos-ethyl (ISO)</td>
<td>250 mg/kg</td>
<td>390 mg/L</td>
<td></td>
</tr>
</tbody>
</table>
Trade name: Pesticide Standard 7

41198-08-7 O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>620.5 mg/kg (rat)</td>
<td>&gt;2.2 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>&gt;2.2 mg/L (rat)</td>
</tr>
</tbody>
</table>

120068-37-3 fipronil

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>97 mg/kg (rat)</td>
<td>&gt;2.2 mg/L (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>354 mg/kg (rabbit)</td>
<td>&gt;2.2 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>&gt;2.2 mg/L (rat)</td>
</tr>
</tbody>
</table>

68359-37-5 cyfluthrin (ISO)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>900 mg/kg (rat)</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5,000 mg/kg (rat)</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
</tbody>
</table>

834-12-8 ametryn (ISO)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1,626 mg/kg (rat)</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>8,160 mg/kg (rabbit)</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>&gt;2.22 mg/L (rat)</td>
</tr>
</tbody>
</table>

2921-88-2 chlorpyrifos (ISO)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>60 mg/kg (mouse)</td>
<td>&gt;200 mg/L (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>135 mg/kg (rat)</td>
<td>&gt;200 mg/L (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>&gt;200 mg/L (rat)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
  · on the skin: No irritant effect.
  · on the eye: Irritating effect.
  · Sensitization: No sensitizing effects known.

· Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)
  1912-24-9 atrazine (ISO) 3
  101-21-3 chlorpropham 3
  122-34-9 simazine (ISO) 3

· NTP (National Toxicology Program)
  None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

12 Ecological information

· Toxicity
  · Aquatic toxicity: No further relevant information available.
Safety Data Sheet acc. to OSHA HCS

Trade name: Pesticide Standard 7

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation:**
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
  - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
  - **DOT, IMDG, IATA** UN1648

- **UN proper shipping name**
  - **DOT** Acetonitrile solution
  - **IMDG** ACETONITRILE solution, MARINE POLLUTANT
  - **IATA** ACETONITRILE solution

- **Transport hazard class(es)**
  - **DOT**
    - **Class** 3 Flammable liquids
    - **Label** 3
  - **IMDG**
    - **Class** 3 Flammable liquids
Trade name: Pesticide Standard 7

- **Label** 3
- **IATA**
- **Class** 3 Flammable liquids
- **Label** 3

- **Packing group** II
- **DOT, IMDG, IATA**

- **Environmental hazards:** Product contains environmentally hazardous substances: cyfluthrin (ISO), lambda-cyhalothrin
- **Marine pollutant:** Symbol (fish and tree)

- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 33
- **EMS Number:** F-E-S-D
- **Stowage Category** B
- **Stowage Code** SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **Transport/Additional information:**
  - **DOT**
  - **Quantity limitations**
    - On passenger aircraft/rail: 5 L
    - On cargo aircraft only: 60 L

- **IMDG**
  - **Limited quantities (LQ)** 1L
  - **Excepted quantities (EQ)** Code: E2
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":** UN 1648 ACETONITRILE SOLUTION, 3, II, ENVIRONMENTALLY HAZARDOUS

*15 Regulatory information*

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - 2642-71-9 azinphos-ethyl (ISO)
    - 56-72-4 coumaphos (ISO)
  - **Section 313 (Specific toxic chemical listings):**
    - 75-05-8 acetonitrile
    - 41198-08-7 O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate
    - 68359-37-5 cyfluthrin (ISO)

(Contd. on page 10)
Trade name: Pesticide Standard 7

<table>
<thead>
<tr>
<th>834-12-8</th>
<th>ametryn (ISO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1912-24-9</td>
<td>atrazine (ISO)</td>
</tr>
<tr>
<td>7287-19-6</td>
<td>prometryn</td>
</tr>
<tr>
<td>122-34-9</td>
<td>simazine (ISO)</td>
</tr>
<tr>
<td>60207-90-1</td>
<td>propiconazole</td>
</tr>
</tbody>
</table>

· TSCA (Toxic Substances Control Act):
  - 75-05-8 acetonitrile
  - 1912-24-9 atrazine (ISO)
  - 1746-81-2 monolinuron (ISO)
  - 122-34-9 simazine (ISO)

· Proposition 65
  · Chemicals known to cause cancer:
    - 36734-19-7 iprodione (ISO)
  · Chemicals known to cause reproductive toxicity for females:
    - 1912-24-9 atrazine (ISO)
    - 122-34-9 simazine (ISO)
  · Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.
  · Chemicals known to cause developmental toxicity:
    - 1912-24-9 atrazine (ISO)
    - 2921-88-2 chlorpyrifos (ISO)
    - 122-34-9 simazine (ISO)

· Carcinogenic categories
  · EPA (Environmental Protection Agency)
    - 75-05-8 acetonitrile CBD, D
  · TLV (Threshold Limit Value established by ACGIH)
    - 75-05-8 acetonitrile A4
    - 56-72-4 coumaphos (ISO) A4
    - 1912-24-9 atrazine (ISO) A4
    - 2921-88-2 chlorpyrifos (ISO) A4
  · NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
  · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
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.

· Date of preparation / last revision 10/08/2018 / 3
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
Trade name: Pesticide Standard 7

DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

* Data compared to the previous version altered.
1 Identification

- Product identifier
- Trade name: Pesticide Standard 8
- Part number: AGI-P03-8
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA
- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) identification

- Classification of the substance or mixture

  GHS02 Flame
  Flam. Liq. 2 H225 Highly flammable liquid and vapor.

  GHS07
  Acute Tox. 4 H302 Harmful if swallowed.
  Eye Irrit. 2A H319 Causes serious eye irritation.

- Label elements
- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms

  GHS02 GHS07

- Signal word Danger

- Hazard-determining components of labeling:
  acetonitrile

- Hazard statements
  Highly flammable liquid and vapor.
  Harmful if swallowed.
  Causes serious eye irritation.

- Precautionary statements
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
Trade name: Pesticide Standard 8

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

- NFPA ratings (scale 0 - 4)
  
  Stock
  
  Health = 2
  Fire = 3
  Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  
  Stock
  
  HEALTH
  
  Health = 2
  FIRE
  
  Fire = 3
  REACTIVITY
  
  Reactivity = 0

- Other hazards
  
  Results of PBT and vPvB assessment
  
  PBT: Not applicable.
  vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:
  
  75-05-8 acetonitrile 99.644%

4 First-aid measures

- Description of first aid measures
- General information:
  
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact:
  
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
47.1.11 
· After swallowing: Immediately call a doctor.
· Information for doctor:
  · Most important symptoms and effects, both acute and delayed No further relevant information available.
  · Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Fire-fighting measures

· Extinguishing media
  · Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  · For safety reasons unsuitable extinguishing agents: Water with full jet
  · Special hazards arising from the substance or mixture No further relevant information available.
· Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions: Do not allow to enter sewers/ surface or ground water.
· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
· Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>13 ppm</td>
<td></td>
</tr>
<tr>
<td>298-02-2 phorate (ISO)</td>
<td>0.0036 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1563-66-2 carbofuran (ISO)</td>
<td>0.3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>732-11-6 phosmet (ISO)</td>
<td>0.049 mg/m³</td>
<td></td>
</tr>
<tr>
<td>947-02-4 phosfolan (ISO)</td>
<td>0.82 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PAC-2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>298-02-2 phorate (ISO)</td>
<td>0.040 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1563-66-2 carbofuran (ISO)</td>
<td>0.43 mg/m³</td>
<td></td>
</tr>
<tr>
<td>732-11-6 phosmet (ISO)</td>
<td>0.54 mg/m³</td>
<td></td>
</tr>
<tr>
<td>947-02-4 phosfolan (ISO)</td>
<td>9 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PAC-3:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>298-02-2 phorate (ISO)</td>
<td>0.12 mg/m³</td>
<td></td>
</tr>
<tr>
<td>1563-66-2 carbofuran (ISO)</td>
<td>3.7 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 4)
7 Handling and storage

- **Handling:**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.

- **Specific end use(s)**
  - No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Long-term value</th>
<th>TLV Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>70 mg/m³, 40 ppm</td>
<td>34 mg/m³, 20 ppm</td>
<td>34 mg/m³, 20 ppm</td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes.
  - **Breathing equipment:**
    - When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
    - Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
  - **Protection of hands:**
    - Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times...
**Trade name: Pesticide Standard 8**

- exceeding 4 hrs. Supplier recommendations should be followed.
- **Material of gloves**
  - For normal use: nitrile rubber, 11-13 mil thickness
  - For direct contact with the chemical: butyl rubber, 12-15 mil thickness
- **Penetration time of glove material**
  - For normal use: nitrile rubber: 1 hour
  - For direct contact with the chemical: butyl rubber: >4 hours
- **Eye protection:**
  - Tightly sealed goggles

---

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Color: Colorless
  - **Odor:** Aromatic
  - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** -46 °C (-50.8 °F)
  - **Boiling point/Boiling range:** 81 °C (177.8 °F)
- **Flash point:** 2 °C (35.6 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 525 °C (977 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - **Lower:** 4.4 Vol %
  - **Upper:** 16 Vol %
- **Vapor pressure at 20 °C (68 °F):** 0 hPa (0 mm Hg)
- **Density at 20 °C (68 °F):** 0.786 g/cm³ (6.55917 lbs/gal)
  - **Relative density:** Not determined.
  - **Vapor density:** Not determined.
  - **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

(Contd. on page 6)
10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:

  **ATE (Acute Toxicity Estimate)**
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1,325 mg/kg (rat)</td>
<td>3,600 mg/L (mouse)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2,007 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

  **75-05-8 acetonitrile**
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1,320 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5,000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>&gt;1.09 mg/L (rat)</td>
<td></td>
</tr>
</tbody>
</table>

  **153233-91-1 etoxazol**
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5,000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2,000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>&gt;1.09 mg/L (rat)</td>
<td></td>
</tr>
</tbody>
</table>

  **298-02-2 phorate (ISO)**
<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1.6 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>2.5 mg/kg (rat)</td>
</tr>
</tbody>
</table>

*(Contd. of page 7)*
Trade name: Pesticide Standard 8

### 732-11-6 phosmet (ISO)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>92.5 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>1,150 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>&gt;3,160 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>LC50/4 h</td>
<td>54 mg/L (rat)</td>
<td></td>
</tr>
</tbody>
</table>

### 300-76-5 naled (ISO)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>92 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>800 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,100 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

### 113614-08-7 beflubutamid

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5,000 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2,000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    None of the ingredients is listed.
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA UN1648

- UN proper shipping name
  - DOT Acetonitrile solution
  - IMDG ACETONITRILE solution, MARINE POLLUTANT
  - IATA ACETONITRILE solution

- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3
  - IMDG
    - Class 3 Flammable liquids
    - Label 3
  - IATA
    - Class 3 Flammable liquids
    - Label 3

- Packing group
  - DOT, IMDG, IATA II

- Environmental hazards:
  - Product contains environmentally hazardous substances: benalaxyl, phorate (ISO)
Trade name: Pesticide Standard 8

- **Marine pollutant:** Symbol (fish and tree)
- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** B
- **Stowage Code** SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **Transport/Additional information:**
  - **DOT**
    - **Quantity limitations** On passenger aircraft/rail: 5 L
      On cargo aircraft only: 60 L
  - **IMDG**
    - **Limited quantities (LQ)** 1L
    - **Excepted quantities (EQ)** Code: E2
      Maximum net quantity per inner packaging: 30 ml
      Maximum net quantity per outer packaging: 500 ml
  - **UN "Model Regulation":** UN 1648 ACETONITRILE SOLUTION, 3, II, ENVIRONMENTALLY HAZARDOUS

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      298-02-2 phorate (ISO)
      1563-66-2 carbofuran (ISO)
      732-11-6 phosmet (ISO)
      947-02-4 phosfolan (ISO)
    - **Section 313 (Specific toxic chemical listings):**
      75-05-8 acetonitrile
      1563-66-2 carbofuran (ISO)
      709-98-8 propanil (ISO)
      300-76-5 naled (ISO)
      51338-27-3 methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate
      69806-50-4 fluazifop-butyl (ISO)
      88671-89-0 myclobutanil
    - **TSCA (Toxic Substances Control Act):**
      75-05-8 acetonitrile
      1563-66-2 carbofuran (ISO)
      3766-81-2 2-butylyphenyl methylcarbamate
      947-02-4 phosfolan (ISO)
47.1.11 · Proposition 65

- Chemicals known to cause cancer:
  - 51338-27-3 methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate
  - 32809-16-8 procymidone

- Chemicals known to cause reproductive toxicity for females:
  None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:
  - 88671-89-0 myclobutanil

- Chemicals known to cause developmental toxicity:
  - 51338-27-3 methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate
  - 69806-50-4 fluazifop-butyl (ISO)
  - 88671-89-0 myclobutanil

- Carcinogenic categories

- EPA (Environmental Protection Agency)
  - 75-05-8 acetonitrile CBD, D

- TLV (Threshold Limit Value established by ACGIH)
  - 75-05-8 acetonitrile A4
  - 298-02-2 phorate (ISO) A4
  - 1563-66-2 carbofuran (ISO) A4
  - 300-76-5 naled (ISO) A4

- NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients is listed.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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.

- Date of preparation / last revision 10/08/2018 / 3

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value

(Contd. on page 11)
**Trade name: Pesticide Standard 8**

PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Acute Tox. 4: Acute toxicity – Category 4  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
* Data compared to the previous version altered.
1 Identification

- Product identifier
- Trade name: Pesticide Standard 9
- Part number: AGI-P03-9
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use

- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd.
  Santa Clara, CA  95051  USA

- Information department:
  Telephone: 800-227-9770
  e-mail: pdl-mds_author@agilent.com
- Emergency telephone number: CHEMTREC®: 1-800-424-9300

2 Hazard(s) Identification

- Classification of the substance or mixture

  ![GHS02 Flame]
  Flam. Liq. 2 H225 Highly flammable liquid and vapor.

  ![GHS07]
  Acute Tox. 4 H302 Harmful if swallowed.
  Eye Irrit. 2A H319 Causes serious eye irritation.

- Label elements
  - GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

  ![GHS02] ![GHS07]

- Signal word: Danger

- Hazard-determining components of labeling:
  - acetonitrile

- Hazard statements
  - Highly flammable liquid and vapor.
  - Harmful if swallowed.
  - Causes serious eye irritation.

- Precautionary statements
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.
Trade name: Pesticide Standard 9

Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classifications:

- **NFPA ratings (scale 0 - 4)**
  - Health = 2
  - Fire = 3
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - HEALTH 2
  - FIRE 3
  - REACTIVITY 0

Other hazards:

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

#### Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>acetonitrile</td>
<td>99.746%</td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Trade name: Pesticide Standard 9

- **After swallowing**: Immediately call a doctor.
- **Information for doctor**: 
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment: No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions**: Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

### Protective Action Criteria for Chemicals

- **PAC-1**:  
  - 75-05-8 acetonitrile 13 ppm
  - 510-15-6 chlorobenzilate (ISO) 8.4 mg/m³
  - 21609-90-5 leptophos (ISO) 2.7 mg/m³
  - 92-52-4 biphenyl 0.87 ppm
  - 122-39-4 diphenylamine 30 mg/m³
  - 82-68-8 quintozene (ISO) 1.5 mg/m³
  - 72-43-5 methoxychlor 30 mg/m³

- **PAC-2**:  
  - 75-05-8 acetonitrile 50 ppm
  - 510-15-6 chlorobenzilate (ISO) 92 mg/m³
  - 21609-90-5 leptophos (ISO) 30 mg/m³
  - 92-52-4 biphenyl 9.6 ppm
  - 122-39-4 diphenylamine 180 mg/m³
  - 82-68-8 quintozene (ISO) 28 mg/m³
  - 72-43-5 methoxychlor 150 mg/m³
Trade name: Pesticide Standard 9

<table>
<thead>
<tr>
<th>PAC-3:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8</td>
<td>acetonitrile 150 ppm</td>
</tr>
<tr>
<td>510-15-6</td>
<td>chlorobenzilate (ISO) 550 mg/m³</td>
</tr>
<tr>
<td>21609-90-5</td>
<td>leptophos (ISO) 53 mg/m³</td>
</tr>
<tr>
<td>92-52-4</td>
<td>biphenyl 300 ppm</td>
</tr>
<tr>
<td>122-39-4</td>
<td>diphenylamine 220 mg/m³</td>
</tr>
<tr>
<td>82-68-8</td>
<td>quintozene (ISO) 62 mg/m³</td>
</tr>
<tr>
<td>72-43-5</td>
<td>methoxychlor 4,500 mg/m³</td>
</tr>
</tbody>
</table>

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Keep receptacle tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

<table>
<thead>
<tr>
<th>75-05-8 acetonitrile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong></td>
</tr>
<tr>
<td><strong>REL</strong></td>
</tr>
<tr>
<td><strong>TLV</strong></td>
</tr>
<tr>
<td><strong>Skin</strong></td>
</tr>
</tbody>
</table>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.
Trade name: Pesticide Standard 9

- **Breathing equipment:**
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.

  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours

- **Eye protection:**
  Tightly sealed goggles

---

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - General Information
    - **Appearance:**
      - **Form:** Fluid
      - **Color:** Colorless
      - **Odor:** Aromatic
      - **Odor threshold:** Not determined.
    - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** -46 °C (-50.8 °F)
  - **Boiling point/Boiling range:** 81 °C (177.8 °F)

- **Flash point:** 2 °C (35.6 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 525 °C (977 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**
  - **Lower:** 4.4 Vol %
Trade name: Pesticide Standard 9

Upper: 16 Vol %
· Vapor pressure at 20 °C (68 °F): 0 hPa (0 mm Hg)
· Density at 20 °C (68 °F): 0.786 g/cm³ (6.55917 lbs/gal)
· Relative density: Not determined.
· Vapor density: Not determined.
· Evaporation rate: Not determined.
· Solubility in / Miscibility with Water: Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
  Dynamic at 20 °C (68 °F): 0.39 mPas
  Kinematic: Not determined.
· Solvent content:
  VOC content: 0.00 %
  0.0 g/l / 0.00 lb/gal
· Solids content: 0.2 %
· Other information: No further relevant information available.

10 Stability and reactivity
· Reactivity: No further relevant information available.
· Chemical stability
  · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

* 11 Toxicological information
· Information on toxicological effects
  · Acute toxicity:
  · LD/LC50 values that are relevant for classification:
    ATE (Acute Toxicity Estimate)
    Oral LD50 1,323 mg/kg (rat)
    Dermal LD50 >2,005 mg/kg (rabbit)
    Inhalative LC50/4 h 3,596 mg/L (mouse)
    75-05-8 acetonitrile
    Oral LD50 1,320 mg/kg (rat)
    Dermal LD50 >2,000 mg/kg (rabbit)
    Inhalative LC50/4 h 3,587 mg/L (mouse)
2310-17-0 phosalone

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>85 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>1,000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 510-15-6 chlorobenzilate (ISO) 3
    - 82-68-8 quintozene (ISO) 3
    - 72-43-5 methoxychlor 3
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.
  - **Behavior in environmental systems:**
    - **Bioaccumulative potential** No further relevant information available.
    - **Mobility in soil** No further relevant information available.
  - **Additional ecological information:**
  - **General notes:**
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
### 14 Transport information

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
<th>UN1648</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOT, IMDG, IATA</strong></td>
<td>UN1648</td>
</tr>
</tbody>
</table>

**DOT proper shipping name**
- **Class**: 3 Flammable liquids
- **Label**: 3

**IMDG proper shipping name**
- **Class**: 3 Flammable liquids
- **Label**: 3

**IATA proper shipping name**
- **Class**: 3 Flammable liquids
- **Label**: 3

**Packing group**
- **DOT, IMDG, IATA**: II

**Environmental hazards:**
Product contains environmentally hazardous substances: alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropenecarboxylate, phosalone

**Marine pollutant:**
Symbol (fish and tree)

**Special precautions for user**
Warning: Flammable liquids
- **Danger code (Kemler)**: 33
- **EMS Number**: F-E,S-D
- **Stowage Category**: B
### 15 Regulatory information

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

<table>
<thead>
<tr>
<th><strong>Sara</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 355 (extremely hazardous substances):</strong></td>
</tr>
<tr>
<td>21609-90-5 leptophos (ISO)</td>
</tr>
<tr>
<td><strong>Section 313 (Specific toxic chemical listings):</strong></td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
</tr>
<tr>
<td>510-15-6 chlorobenzilate (ISO)</td>
</tr>
<tr>
<td>92-52-4 biphenyl</td>
</tr>
<tr>
<td>39515-41-8 alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate</td>
</tr>
<tr>
<td>122-39-4 diphenylamine</td>
</tr>
<tr>
<td>82-68-8 quintozene (ISO)</td>
</tr>
<tr>
<td>1861-40-1 benfluralin</td>
</tr>
<tr>
<td>72-43-5 methoxychlor</td>
</tr>
<tr>
<td><strong>TSCA (Toxic Substances Control Act):</strong></td>
</tr>
<tr>
<td>75-05-8 acetonitrile</td>
</tr>
<tr>
<td>510-15-6 chlorobenzilate (ISO)</td>
</tr>
<tr>
<td>92-52-4 biphenyl</td>
</tr>
<tr>
<td>122-39-4 diphenylamine</td>
</tr>
<tr>
<td>82-68-8 quintozene (ISO)</td>
</tr>
<tr>
<td>15457-05-3 fluorodifen</td>
</tr>
<tr>
<td><strong>Proposition 65</strong></td>
</tr>
<tr>
<td><strong>Chemicals known to cause cancer:</strong></td>
</tr>
<tr>
<td>510-15-6 chlorobenzilate (ISO)</td>
</tr>
<tr>
<td>2593-15-9 5-ethoxy-3-trichloromethyl-1,2,4-thiadiazole</td>
</tr>
</tbody>
</table>
### 47.1.11

- **Chemicals known to cause reproductive toxicity for females:**
  
  None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**
  
  None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**
  
  None of the ingredients is listed.

### Carcinogenic categories

- **EPA (Environmental Protection Agency)**
  
<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>CBD, D</td>
<td></td>
</tr>
<tr>
<td>92-52-4 biphenyl</td>
<td>SC</td>
<td></td>
</tr>
<tr>
<td>72-43-5 methoxychlor</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

- **TLV (Threshold Limit Value established by ACGIH)**
  
<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>A4</td>
<td></td>
</tr>
<tr>
<td>122-39-4 diphenylamine</td>
<td>A4</td>
<td></td>
</tr>
<tr>
<td>82-68-8 quintozene (ISO)</td>
<td>A4</td>
<td></td>
</tr>
<tr>
<td>72-43-5 methoxychlor</td>
<td>A4</td>
<td></td>
</tr>
</tbody>
</table>

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  
<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-43-5 methoxychlor</td>
<td></td>
</tr>
</tbody>
</table>

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

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.

- **Date of preparation / last revision** 10/08/2018 / 3
- **Abbreviations and acronyms:**
  
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 4: Acute toxicity – Category 4
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

  * Data compared to the previous version altered.
# 1 Identification

- **Product identifier**
  - **Trade name:** Pesticide Standard 10
  - **Part number:** AGI-P03-10
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Agilent Technologies, Inc.  
    5301 Stevens Creek Blvd.  
    Santa Clara, CA  95051  USA
- **Information department:**
  - Telephone: 800-227-9770
  - e-mail: pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

---

# 2 Hazard(s) Identification

- **Classification of the substance or mixture**
  - GHS02 Flame
    Flam. Liq. 2  H225  Highly flammable liquid and vapor.
  - GHS08 Health hazard
    Carc. 2  H351  Suspected of causing cancer.
  - GHS07
    Acute Tox. 4  H302  Harmful if swallowed.
    Eye Irrit. 2A  H319  Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**
  - GHS02  GHS07  GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  - acetonitrile
  - heptachlor epoxide - isomer B
- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Harmful if swallowed.

(Contd. on page 2)
47.1.11 Causes serious eye irritation. Suspected of causing cancer.

- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
  - Ground/bond container and receiving equipment.
  - Use explosion-proof electrical/ventilating/lighting/equipment.
  - Use only non-sparking tools.
  - Take precautionary measures against static discharge.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - Rinse mouth.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - IF exposed or concerned: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - In case of fire: Use for extinction: CO2, powder or water spray.
  - Store in a well-ventilated place. Keep cool.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - NFPA ratings (scale 0 - 4)
    - Health = 2
    - Fire = 3
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - HEALTH 2
    - FIRE 3
    - REACTIVITY 0

- **Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

---

**3 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**
  - 75-05-8 acetonitrile 99.873%
4 First-aid measures

- **Description of first aid measures**
- **General information:**
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:**
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
  **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  **Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**
  - **PAC-1:**
    | Chemical | PAC-1 Limit |
    |----------|-------------|
    | 75-05-8 acetonitrile | 13 ppm |
    | 1024-57-3 heptachlor epoxide - isomer B | 0.15 mg/m³ |
7 Handling and storage

- Handling:
  - Precautions for safe handling: Open and handle receptacle with care.
  - Information about protection against explosions and fires:
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
    - Keep respiratory protective device available.

- Conditions for safe storage, including any incompatibilities

- Storage:
  - Requirements to be met by storerooms and receptacles: Store in a cool location.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    - Keep receptacle tightly sealed.
    - Store in cool, dry conditions in well sealed receptacles.
  - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters

- Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-05-8 acetonitrile</td>
<td>70 mg/m³, 40 ppm</td>
<td>34 mg/m³, 20 ppm</td>
<td>34 mg/m³, 20 ppm</td>
</tr>
<tr>
<td>1024-57-3 heptachlor epoxide - isomer B</td>
<td></td>
<td></td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

- **Breathing equipment:**
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.

- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours

- **Eye protection:**
  Tightly sealed goggles

---

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Color:** Colorless
    - **Odor:** Aromatic
    - **Odor threshold:** Not determined.

- **pH-value:**
  - Not determined.

- **Change in condition**
  - **Melting point/Melting range:** -46 °C (-50.8 °F)
  - **Boiling point/Boiling range:** 81 °C (177.8 °F)

- **Flash point:**
  - 2 °C (35.6 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - 525 °C (977 °F)

- **Decomposition temperature:**
  - Not determined.

- **Auto igniting:**
  - Product is not selfigniting.

- **Danger of explosion:**
  - Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Trade name: Pesticide Standard 10

10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
  - **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:
  - **LD/LC50 values that are relevant for classification**:
    - **ATE (Acute Toxicity Estimate)**
      - Oral LD50 1,188 mg/kg (rat)
      - Dermal LD50 >2,003 mg/kg (rabbit)
      - Inhalative LC50/4 h 3,592 mg/L (mouse)
    - **75-05-8 acetonitrile**
      - Oral LD50 1,320 mg/kg (rat)
Trade name: Pesticide Standard 10

<table>
<thead>
<tr>
<th>Dermal LD50</th>
<th>Inhalative LC50/4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;2,000 mg/kg (rabbit)</td>
<td>3,587 mg/L (mouse)</td>
</tr>
</tbody>
</table>

1024-57-3 heptachlor epoxide - isomer B

| Oral LD50 | 15 mg/kg (rat) |

- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  The product shows the following dangers according to internally approved calculation methods for preparations:
  - Harmful
  - Irritant

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    1024-57-3 heptachlor epoxide - isomer B 2B
  - **NTP (National Toxicology Program)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.

- **Additional ecological information:**
  - **General notes:**
    Water hazard class 2 (Self-assessment): hazardous for water
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Trade name: Pesticide Standard 10

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**
  - DOT, IMDG, IATA: UN1648

- **UN proper shipping name**
  - DOT: Acetonitrile solution
  - IMDG, IATA: ACETONITRILE solution

- **Transport hazard class(es)**
  - **DOT**
    - Class: 3 Flammable liquids
    - Label: 3

- **IMDG, IATA**
  - Class: 3 Flammable liquids
  - Label: 3

- **Packing group**
  - DOT, IMDG, IATA: II

- **Environmental hazards:**
  - Not applicable.

- **Special precautions for user**
  - Warning: Flammable liquids
- **Danger code (Kemler):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category:** B
- **Stowage Code:** SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **Transport/Additional information:**
  - **DOT**
    - Quantity limitations:
      - On passenger aircraft/rail: 5 L
      - On cargo aircraft only: 60 L
  - **IMDG**
    - Limited quantities (LQ): 1L
Safety Data Sheet
acc. to OSHA HCS

Trade name: Pesticide Standard 10

- **Excepted quantities (EQ)**
  - Code: E2
  - Maximum net quantity per inner packaging: 30 ml
  - Maximum net quantity per outer packaging: 500 ml

- **UN "Model Regulation":**
  - UN 1648 ACETONITRILE SOLUTION, 3, II

---

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):**
      - None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):**
      - 75-05-8 acetonitrile
    - **TSCA (Toxic Substances Control Act):**
      - 75-05-8 acetonitrile
    - **TSCA new (21st Century Act) (Substances not listed):**
      - 1024-57-3 heptachlor epoxide - isomer B
  - **Proposition 65**
    - **Chemicals known to cause cancer:**
      - 1024-57-3 heptachlor epoxide - isomer B
    - **Chemicals known to cause reproductive toxicity for females:**
      - None of the ingredients is listed.
    - **Chemicals known to cause reproductive toxicity for males:**
      - None of the ingredients is listed.
    - **Chemicals known to cause developmental toxicity:**
      - None of the ingredients is listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - 75-05-8 acetonitrile  CBD, D
    - 1024-57-3 heptachlor epoxide - isomer B  B2
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 75-05-8 acetonitrile  A4
    - 1024-57-3 heptachlor epoxide - isomer B  A3
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - 1024-57-3 heptachlor epoxide - isomer B  A3
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

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.
**Trade name: Pesticide Standard 10**

- **Date of preparation / last revision**: 10/08/2018 / 3

- **Abbreviations and acronyms**:
  - **ADR**: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - **IMDG**: International Maritime Code for Dangerous Goods
  - **DOT**: US Department of Transportation
  - **IATA**: International Air Transport Association
  - **ACGIH**: American Conference of Governmental Industrial Hygienists
  - **EINECS**: European Inventory of Existing Commercial Chemical Substances
  - **ELINCS**: European List of Notified Chemical Substances
  - **CAS**: Chemical Abstracts Service (division of the American Chemical Society)
  - **NFPA**: National Fire Protection Association (USA)
  - **HMIS**: Hazardous Materials Identification System (USA)
  - **VOC**: Volatile Organic Compounds (USA, EU)
  - **LC50**: Lethal concentration, 50 percent
  - **LD50**: Lethal dose, 50 percent
  - **PBT**: Persistent, Bioaccumulative and Toxic
  - **vPvB**: very Persistent and very Bioaccumulative
  - **NIOSH**: National Institute for Occupational Safety
  - **OSHA**: Occupational Safety & Health
  - **TLV**: Threshold Limit Value
  - **PEL**: Permissible Exposure Limit
  - **REL**: Recommended Exposure Limit
  - **Flam. Liq. 2**: Flammable liquids – Category 2
  - **Acute Tox. 4**: Acute toxicity – Category 4
  - **Eye Irrit. 2A**: Serious eye damage/eye irritation – Category 2A
  - **Carc. 2**: Carcinogenicity – Category 2

- *Data compared to the previous version altered.*