

Product code	Description
PSM-105	317 Compound Pesticide Reference Material Kit
Components:	
PSM-105-A	GC Pesticide Standard no. 1 (1X1 mL)
PSM-105-B	GC Pesticide Standard no. 2 (1X1 mL)
PSM-105-C	LC Pesticide Standard no. 1 (1X1 mL)
PSM-105-D	LC Pesticide Standard no. 2 (1X1 mL)
PSM-105-E	LC Pesticide Standard no. 3 (1X1 mL)
PSM-105-F	LC Pesticide Standard no. 4 (1X1 mL)
PSM-105-G	LC Pesticide Standard no. 5 (1X1 mL)
PSM-105-H	LC Pesticide Standard no. 6 (1X1 mL)
PSM-105-I	LC Pesticide Standard no. 7 (1X1 mL)
PSM-105-J	LC Pesticide Standard no. 8 (1X1 mL)
PSM-105-K	LC Pesticide Standard no. 9 (1X1 mL)
PSM-105-L	LC/GC Pesticide Standard no. 1 (1X1 mL)
PSM-105-M	LC/GC Pesticide Standard no. 2 (1X1 mL)
PSM-105-N	GC/LC Pesticide Standard no. 1 (1X1 mL)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** GC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-A
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H336 May cause drowsiness or dizziness.

- **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:**
acetone
- **Hazard statements**
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 1)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof [electrical/ventilating/lighting] equipment.
Use non-sparking tools.
Take actions to prevent static discharges.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a poison center/doctor if you feel unwell.
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 container tightly closed.
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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

67-64-1 acetone

99.805% w/w

4 First aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **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:** If symptoms persist consult doctor.

(Contd. on page 3)

Safety Data Sheet according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 3)

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:**

67-64-1 acetone

EL	Short-term value: 500 ppm Long-term value: 250 ppm
EV	Short-term value: 750 ppm Long-term value: 500 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

· **Eye protection:**



Tightly sealed goggles

CA

(Contd. on page 5)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 4)

9 Physical and chemical properties· **Information on basic physical and chemical properties**· **General Information**· **Appearance:****Form:** Fluid**Color:** Colorless· **Odor:** Characteristic· **Odor threshold:** Not determined.· **pH-value:** Not determined.· **Change in condition****Melting point/Melting range:** -94.7 °C**Boiling point/Boiling range:** 55 °C· **Flash point:** -17 °C· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 465 °C· **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:** 2.6 Vol %**Upper:** 13 Vol %· **Vapor pressure at 20 °C:** 245.3 hPa· **Density at 20 °C:** 0.791 g/cm³· **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:** Not determined.**Kinematic:** Not determined.· **Solvent content:****Organic solvents:** 99.8 %**Solids content:** 0.1 %· **Other information** No further relevant information available.**10 Stability and reactivity**· **Reactivity** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 5)

- **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:**

67-64-1 acetone

Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

82657-04-3 bifenthrin

Oral	LD50	55 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

91465-08-6 lambda-cyhalothrin

Oral	LD50	56 mg/kg (rat)
Dermal	LD50	632 mg/kg (rat)

122453-73-0 chlorfenapyr

Oral	LD50	441 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1,900 mg/L (rat)

52918-63-5 deltamethrin (ISO)

Oral	LD50	9.36 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

298-00-0 parathion -methyl (ISO)

Oral	LD50	6.01 mg/kg (rat)
Dermal	LD50	67 mg/kg (rat)
		300 mg/kg (rabbit)

56-38-2 parathion (ISO)

Oral	LD50	2 mg/kg (rat)
Dermal	LD50	6.8 mg/kg (rat)

68359-37-5 cyfluthrin (ISO)

Oral	LD50	900 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	530 mg/L (rat)

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

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 6)

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· Carcinogenic categories
· IARC (International Agency for Research on Cancer)

52918-63-5	deltamethrin (ISO)	3
51630-58-1	fenvalerate	3
298-00-0	parathion -methyl (ISO)	3
133-06-2	captan (ISO)	3
57-74-9	chlordan (ISO)	2B
50-29-3	DDT (common name not adopted by ISO)	2A
72-20-8	endrin (ISO)	3
56-38-2	parathion (ISO)	2B
52645-53-1	permethrin (ISO)	3

· NTP (National Toxicology Program)

608-73-1	1,2,3,4,5,6-hexachlorocyclohexane	R
50-29-3	DDT (common name not adopted by ISO)	R

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 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· 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.

CA

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 7)

14 Transport information

· Not Regulated, De minimus Quantities	-
· UN-Number	
· DOT, TDG, IMDG, IATA	UN1090
· UN proper shipping name	
· DOT	Acetone
· TDG	1090 ACETONE, ENVIRONMENTALLY HAZARDOUS
· IMDG	ACETONE, MARINE POLLUTANT
· IATA	ACETONE
· Transport hazard class(es)	
· DOT, IATA	
	
· Class	3 Flammable liquids
· Label	3
· TDG, IMDG	
 	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S</u> -E
· Stowage Category	B
· 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
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 8)

- | | |
|--|---|
| <ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 1L
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml |
| <ul style="list-style-type: none"> · UN "Model Regulation": | UN 1090 ACETONE, 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):**

298-00-0	parathion -methyl (ISO)
57-74-9	chlordan (ISO)
298-04-4	disulfoton
72-20-8	endrin (ISO)
56-38-2	parathion (ISO)

· **Section 313 (Specific toxic chemical listings):**

82657-04-3	bifenthrin
39515-41-8	alpha-cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate
51630-58-1	fenvalerate
298-00-0	parathion -methyl (ISO)
133-06-2	captan (ISO)
57-74-9	chlordan (ISO)
56-38-2	parathion (ISO)
68359-37-5	cyfluthrin (ISO)
52645-53-1	permethrin (ISO)

· **TSCA (Toxic Substances Control Act):**

67-64-1	acetone
133-06-2	captan (ISO)
50-29-3	DDT (common name not adopted by ISO)
55283-68-6	N-ethyl- α,α,α -trifluoro-N-(2-methylallyl)-2,6-dinitro-para-toluidine

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

67-64-1	acetone
133-06-2	captan (ISO)

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

All ingredients are listed.

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 9)

· **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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** GC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-B
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H336 May cause drowsiness or dizziness.

- **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:**
acetone
- **Hazard statements**
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

(Contd. on page 2)



Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 1)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Call a poison center/doctor if you feel unwell.
 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 container tightly closed.
 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)

· HMIS-ratings (scale 0 - 4)


3 Composition/Information on ingredients

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

· Dangerous components:

67-64-1 acetone

99.78% w/w

4 First aid measures

· Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.

· 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: If symptoms persist consult doctor.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 3)

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:**

67-64-1 acetone

EL	Short-term value: 500 ppm Long-term value: 250 ppm
EV	Short-term value: 750 ppm Long-term value: 500 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

· **Eye protection:**



Tightly sealed goggles

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Fluid
Color:	Colorless
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-94.7 °C
Boiling point/Boiling range:	55 °C
· Flash point:	-17 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	465 °C
· 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:	2.6 Vol %
Upper:	13 Vol %
· Vapor pressure at 20 °C:	245.3 hPa
· Density at 20 °C:	0.791 g/cm ³
· 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.8 %
Solids content:	0.2 %
· Other information	No further relevant information available.

10 Stability and reactivity

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

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 5)

- **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:

67-64-1 acetone

Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

5598-13-0 chlorpyrifos-methyl

Oral	LD50	1,828 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>670 mg/L (rat)

563-12-2 ethion (ISO)

Oral	LD50	13 mg/kg (rat)
Dermal	LD50	62 mg/kg (rat)
Inhalative	LC50/4 h	864 mg/L (rat)

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)

13071-79-9 S-tert-butylthiomethyl O,O-diethylphosphorodithioate

Oral	LD50	4.5 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:
Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

510-15-6	chlorobenzilate (ISO)	3
1897-45-6	chlorothalonil (ISO)	2B
115-32-2	dicofol (ISO)	3
82-68-8	quintozene (ISO)	3
309-00-2	aldrin (ISO)	3
101-21-3	chlorpropham	3

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 6)

60-57-1	dieldrin (ISO)	3
76-44-8	heptachlor (ISO)	2B
72-43-5	methoxychlor	3
1582-09-8	trifluralin (ISO) (containing < 0,5 ppm NPDA)	3

· NTP (National Toxicology Program)

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 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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

· Not Regulated, De minimus Quantities	-
· UN-Number	
· DOT, TDG, IMDG, IATA	UN1090
· UN proper shipping name	
· DOT	Acetone
· TDG	1090 ACETONE, ENVIRONMENTALLY HAZARDOUS
· IMDG	ACETONE, MARINE POLLUTANT
· IATA	ACETONE

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 7)

· **Transport hazard class(es)**

· **DOT, IATA**

· **Class**

3 Flammable liquids

· **Label**

3

· **TDG, IMDG**

· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**

· **DOT, TDG, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (TDG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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

· **TDG**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **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 1090 ACETONE, 3, II, ENVIRONMENTALLY
HAZARDOUS

CA

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 8)

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

122-14-5	fenitrothion (ISO)
470-90-6	chlorfenvinphos (ISO)
563-12-2	ethion (ISO)
786-19-6	carbophenothion (ISO)
309-00-2	aldrin (ISO)
13071-79-9	S-tert-butylthiomethyl O,O-diethylphosphorodithioate
23505-41-1	pirimiphos-ethyl (ISO)

· **Section 313 (Specific toxic chemical listings):**

510-15-6	chlorobenzilate (ISO)
1897-45-6	chlorothalonil (ISO)
5598-13-0	chlorpyrifos-methyl
115-32-2	dicofol (ISO)
122-39-4	diphenylamine
82-68-8	quintozone (ISO)
309-00-2	aldrin (ISO)
2439-01-2	quinomethionate
51338-27-3	methyl 2-(4-(2,4-dichlorophenoxy)phenoxy)propionate
76-44-8	heptachlor (ISO)
25311-71-1	isofenphos (ISO)
72-43-5	methoxychlor
42874-03-3	oxyfluorfen
1582-09-8	trifluralin (ISO) (containing < 0,5 ppm NPDA)
50471-44-8	vinclozolin (ISO)
99-30-9	dichloran

· **TSCA (Toxic Substances Control Act):**

67-64-1	acetone
510-15-6	chlorobenzilate (ISO)
1897-45-6	chlorothalonil (ISO)
122-39-4	diphenylamine
82-68-8	quintozone (ISO)
99-30-9	dichloran

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

67-64-1	acetone
1897-45-6	chlorothalonil (ISO)
122-39-4	diphenylamine
72-43-5	methoxychlor

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 9)

1582-09-8	trifluralin (ISO) (containing < 0,5 ppm NPDA)
50471-44-8	vinclozolin (ISO)
· Canadian Ingredient Disclosure list (limit 0.1%)	
None of the ingredients is listed.	
· Canadian Ingredient Disclosure list (limit 1%)	
All ingredients are 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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-C
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.827% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)



Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 4)

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**Boiling point/Boiling range:** 81 °C**· Flash point:** 2 °C**· Flammability (solid, gaseous):** Not applicable.**· Ignition temperature:** 525 °C**· 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:** 0 hPa**· Density at 20 °C:** 0.786 g/cm³**· 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:** Not determined.**Kinematic:** Not determined.**· Solvent content:****Organic solvents:** 0.0 %**Solids content:** 0.1 %**· Other information** No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 5)

- **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	1,322 mg/kg (rat)
Dermal	LD50	>2,003 mg/kg (rabbit)
Inhalative	LC50/4 h	3,593 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)

80844-07-1 etofenprox

Oral	LD50	>42,800 mg/kg (rat)
Dermal	LD50	>2,140 mg/kg (rat)

2212-67-1 molinate (ISO)

Oral	LD50	369 mg/kg (rat)
Dermal	LD50	3,536 mg/kg (rabbit)

- **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)**

63-25-2	carbaryl (ISO)	3
---------	----------------	---

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

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

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 6)

- **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

- | | |
|---|--|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS |
| · IMDG | ACETONITRILE, MARINE POLLUTANT |
| · IATA | ACETONITRILE |
| · Transport hazard class(es) | |
| · DOT, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · TDG, IMDG | |
|  | |
| · Class | 3 Flammable liquids |

(Contd. on page 8)



Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 7)

· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S-E</u>
· Stowage Category	B
· 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
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 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
63-25-2 carbaryl (ISO)
314-40-9 bromacil
2212-67-1 molinate (ISO)
709-98-8 propanil (ISO)
88671-89-0 myclobutanil
66441-23-4 ethyl 2-[4-[(6-chlorobenzoxazol-2-yl)oxy]phenoxy]propionate

(Contd. on page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 8)

· TSCA (Toxic Substances Control Act):

75-05-8	acetonitrile
63-25-2	carbaryl (ISO)
91-53-2	ethoxyquin
57966-95-7	2-cyano-N-[(ethylamino)carbonyl]-2-(methoxyimino)acetamide

· Canadian substance listings:
· Canadian Domestic Substances List (DSL)

75-05-8	acetonitrile
314-40-9	bromacil
91-53-2	ethoxyquin

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

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.

· Department issuing SDS: Document Control / Regulatory

· Contact: regulatory@ultrasci.com

· Date of the latest revision of the safety data sheet 04/01/2019 / 2

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-D
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.814% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C
· Flash point:	2 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	525 °C
· 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:	0 hPa
· Density at 20 °C:	0.786 g/cm ³
· 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 5)

- **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	1,322 mg/kg (rat)
Dermal	LD50	>2,004 mg/kg (rabbit)
Inhalative	LC50/4 h	3,594 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)

16752-77-5 methomyl

Oral	LD50	17 mg/kg (rat)
Dermal	LD50	5,880 mg/kg (rabbit)

142459-58-3 flufenacet (ISO)

Oral	LD50	589 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>3,700 mg/L (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)**

116-06-3	aldicarb (ISO)	3
----------	----------------	---

- **NTP (National Toxicology Program)**

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 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 6)

- **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

· Not Regulated, De minimus Quantities	-
· UN-Number	
· DOT, TDG, IMDG, IATA	UN1648
· UN proper shipping name	
· DOT	Acetonitrile
· TDG	1648 ACETONITRILE
· IMDG, IATA	ACETONITRILE
· Transport hazard class(es)	
· DOT, TDG, IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S-E</u>

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 7)

· Stowage Category	B
· Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 3, II

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

23135-22-0	N',N'-dimethylcarbamoyl(methylthio)methylenamine N-methylcarbamate
16752-77-5	methomyl
116-06-3	aldicarb (ISO)

· **Section 313 (Specific toxic chemical listings):**

75-05-8	acetonitrile
114-26-1	propoxur (ISO)
23564-05-8	dimethylcarbamoyl chloride
116-06-3	aldicarb (ISO)
5234-68-4	carboxin
43121-43-3	triadimefon (ISO)

· **TSCA (Toxic Substances Control Act):**

75-05-8	acetonitrile
116-06-3	aldicarb (ISO)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

75-05-8	acetonitrile
114-26-1	propoxur (ISO)
23564-05-8	dimethylcarbamoyl chloride

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 8)

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

CA

Safety Data Sheet according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 3 (1X1 mL)
- **Part number:** PSM-105-E
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.846% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 4)

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**Boiling point/Boiling range:** 81 °C· **Flash point:** 2 °C· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 525 °C· **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:** 0 hPa· **Density at 20 °C:** 0.786 g/cm³· **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:** Not determined.**Kinematic:** Not determined.· **Solvent content:****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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 5)

- **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	1,322 mg/kg (rat)
Dermal	LD50	>2,003 mg/kg (rabbit)
Inhalative	LC50/4 h	3,593 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)

- **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.

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.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 6)

- **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

- | | |
|---|---|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE |
| · IMDG, IATA | ACETONITRILE |
| · Transport hazard class(es) | |
| · DOT, TDG, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, TDG, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E, <u>S</u> -E |
| · Stowage Category | B |
| · 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 |

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

(Contd. of page 7)

· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 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

77-06-5 | gibberellic acid

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

75-05-8 | acetonitrile

77-06-5 | gibberellic acid

· **Canadian Ingredient Disclosure list (limit 0.1%)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 3 (1X1 mL)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

(Contd. of page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 4 (1X1 mL)
- **Part number:** PSM-105-F
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.802% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C

· Flash point: 2 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 525 °C

· 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: 0 hPa

· Density at 20 °C: 0.786 g/cm³

· 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:	Not determined.
Kinematic:	Not determined.

· Solvent content:

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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 5)

- **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	>2,004 mg/kg (rabbit)
Inhalative	LC50/4 h	3,594 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)

71751-41-2 abamectin (combination of avermectin B1a and avermectin B1b) (ISO)

Oral	LD50	1.5 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	1,100 mg/L (rat)

65907-30-4 furathiocarb

Oral	LD50	53 mg/kg (rat)
------	------	----------------

103361-09-7 flumioxazin (ISO)

Oral	LD50	>5,000 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)**

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 6)

· NTP (National Toxicology Program)

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

- | | |
|---|--|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS |
| · IMDG | ACETONITRILE, MARINE POLLUTANT |
| · IATA | ACETONITRILE |

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 7)

· **Transport hazard class(es)**

· **DOT, IATA**

· **Class**

3 Flammable liquids

· **Label**

3

· **TDG, IMDG**

· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**

· **DOT, TDG, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (TDG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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

· **TDG**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **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, 3, II, ENVIRONMENTALLY HAZARDOUS

CA

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

(Contd. of page 8)

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
71751-41-2	abamectin (combination of avermectin B1a and avermectin B1b) (ISO)
957-51-7	diphenamid (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
19666-30-9	3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3H)-one
148-79-8	thiabendol (ISO)

· **TSCA (Toxic Substances Control Act):**

75-05-8	acetonitrile
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
41814-78-2	5-methyl-1,2,4-triazolo(3,4-b)benzo-1,3-thiazole
148-79-8	thiabendol (ISO)
5915-41-3	terbuthylazine
63284-71-9	nuarimol

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

75-05-8	acetonitrile
---------	--------------

· **Canadian Ingredient Disclosure list (limit 0.1%)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

· **Department issuing SDS:** Document Control / Regulatory

· **Contact:** regulatory@ultrasci.com

· **Date of the latest revision of the safety data sheet** 04/01/2019 / 2

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 4 (1X1 mL)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

(Contd. of page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 5 (1X1 mL)
- **Part number:** PSM-105-G
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.782% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C

· Flash point: 2 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 525 °C

· 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: 0 hPa

· Density at 20 °C: 0.786 g/cm³

· 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:	Not determined.
Kinematic:	Not determined.

· Solvent content:

Organic solvents: 0.0 %

Solids content: 0.1 %

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity: No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 5)

- **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	>2,004 mg/kg (rabbit)
Inhalative	LC50/4 h	3,595 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)

101463-69-8 flufenoxuron

Oral	LD50	>3,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	5,000 mg/L (rat)

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

Oral	LD50	620.5 mg/kg (rat)
Inhalative	LC50/4 h	>2.2 mg/L (rat)

13593-03-8 quinalphos (ISO)

Oral	LD50	26 mg/kg (rat)
Dermal	LD50	300 mg/kg (rat)
Inhalative	LC50/4 h	330 mg/L (mouse)

121-75-5 malathion (ISO)

Oral	LD50	1,000 mg/kg (rat)
Dermal	LD50	8,790 mg/kg (rabbit)

2310-17-0 phosalone

Oral	LD50	85 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)

24017-47-8 triazophos (ISO)

Oral	LD50	57 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (rat)
Inhalative	LC50/4 h	28 mg/L (rat)

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 6)

2597-03-7 phenthoate (ISO)

Oral	LD50	71 mg/kg (rat)
Dermal	LD50	700 mg/kg (rat)
Inhalative	LC50/4 h	59 mg/L (rat)

14816-18-3 phoxim (ISO)

Oral	LD50	300 mg/kg (rat)
Dermal	LD50	1,000 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)

121-75-5 malathion (ISO)

2A

· NTP (National Toxicology Program)

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.

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 7)

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

14 Transport information

· Not Regulated, De minimus Quantities	-
· UN-Number	
· DOT, TDG, IMDG, IATA	UN1648
· UN proper shipping name	
· DOT	Acetonitrile
· TDG	1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS
· IMDG	ACETONITRILE, MARINE POLLUTANT
· IATA	ACETONITRILE
· Transport hazard class(es)	
· DOT, IATA	
	
· Class	3 Flammable liquids
· Label	3
· TDG, IMDG	
 	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S-E</u>
· Stowage Category	B
· Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L

(Contd. on page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 8)

· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 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):

13171-21-6	phosphamidon
2032-65-7	mercaptodimethur (ISO)
6923-22-4	monocrotophos (ISO)
24017-47-8	triazophos (ISO)
1129-41-5	metolcarb (ISO)

· Section 313 (Specific toxic chemical listings):

75-05-8	acetonitrile
76578-14-8	quazalofop-ethyl
29232-93-7	pirimiphos-methyl (ISO)
41198-08-7	O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate
28249-77-6	S-4-chlorobenzyl diethylthiocarbamate
121-75-5	malathion (ISO)
22781-23-3	bendiocarb (ISO)
330-54-1	diuron(ISO)
330-55-2	linuron (ISO)
2032-65-7	mercaptodimethur (ISO)
59669-26-0	thiodicarb

· TSCA (Toxic Substances Control Act):

75-05-8	acetonitrile
2631-40-5	isoprocab (ISO)
330-54-1	diuron(ISO)
330-55-2	linuron (ISO)
3766-81-2	2-butylphenyl methylcarbamate
1129-41-5	metolcarb (ISO)

(Contd. on page 10)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 5 (1X1 mL)

(Contd. of page 9)

· **Canadian substance listings:**· **Canadian Domestic Substances List (DSL)**

75-05-8	acetonitrile
121-75-5	malathion (ISO)
22781-23-3	bendiocarb (ISO)
330-54-1	diuron(ISO)
14816-18-3	phoxim (ISO)

· **Canadian Ingredient Disclosure list (limit 0.1%)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

· **Department issuing SDS:** Document Control / Regulatory· **Contact:** regulatory@ultrasci.com· **Date of the latest revision of the safety data sheet** 04/01/2019 / 2· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 6 (1X1 mL)
- **Part number:** PSM-105-H
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.808% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C

· Flash point: 2 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 525 °C

· 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: 0 hPa

· Density at 20 °C: 0.786 g/cm³

· 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:	Not determined.
Kinematic:	Not determined.

· Solvent content:

Organic solvents: 0.0 %

Solids content: 0.1 %

· Other information: No further relevant information available.

10 Stability and reactivity

· Reactivity: No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 5)

- **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	>2,004 mg/kg (rabbit)
Inhalative	LC50/4 h	3,594 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)

55-38-9 fenthion (ISO)

Oral	LD50	180 mg/kg (rat)
Dermal	LD50	330 mg/kg (rat)
Inhalative	LC50/4 h	800 mg/L (rat)

2921-88-2 chlorpyrifos (ISO)

Oral	LD50	60 mg/kg (mouse)
		135 mg/kg (rat)
Dermal	LD50	120 mg/kg (mouse)
		202 mg/kg (rat)
Inhalative	LC50/4 h	>200 mg/L (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)

333-41-5	diazinon (ISO)	2A
62-73-7	dichlorvos (ISO)	2B

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 6)

· NTP (National Toxicology Program)

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

- | | |
|---|--|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS |
| · IMDG | ACETONITRILE, MARINE POLLUTANT |
| · IATA | ACETONITRILE |

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 7)

· **Transport hazard class(es)**

· **DOT, IATA**

· **Class**

3 Flammable liquids

· **Label**

3

· **TDG, IMDG**

· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**

· **DOT, TDG, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (TDG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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

· **TDG**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **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, 3, II, ENVIRONMENTALLY HAZARDOUS

CA

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 8)

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

86-50-0	azinphos-methyl (ISO)
62-73-7	dichlorvos (ISO)
13194-48-4	ethoprophos (ISO)

· **Section 313 (Specific toxic chemical listings):**

75-05-8	acetonitrile
30560-19-1	acephate (ISO)
35367-38-5	diflubenzuron
55-38-9	fenthion (ISO)
333-41-5	diazinon (ISO)
62-73-7	dichlorvos (ISO)
13194-48-4	ethoprophos (ISO)
33089-61-1	amitraz (ISO)
72490-01-8	ethyl[2-(4-phenoxyphenoxy)ethyl]carbamate

· **TSCA (Toxic Substances Control Act):**

75-05-8	acetonitrile
35367-38-5	diflubenzuron
333-41-5	diazinon (ISO)
62-73-7	dichlorvos (ISO)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

75-05-8	acetonitrile
2921-88-2	chlorpyrifos (ISO)
333-41-5	diazinon (ISO)
62-73-7	dichlorvos (ISO)

· **Canadian Ingredient Disclosure list (limit 0.1%)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

· **Department issuing SDS:** Document Control / Regulatory

· **Contact:** regulatory@ultrasci.com

· **Date of the latest revision of the safety data sheet** 04/01/2019 / 2

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 6 (1X1 mL)

(Contd. of page 9)

DOT: US Department of Transportation
IATA: International Air Transport Association
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· * **Data compared to the previous version altered.**

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 7 (1X1 mL)
- **Part number:** PSM-105-I
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.923% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C
· Flash point:	2 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	525 °C
· 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:	0 hPa
· Density at 20 °C:	0.786 g/cm ³
· 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 5)

- **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	1,321 mg/kg (rat)
Dermal	LD50	>2,002 mg/kg (rabbit)
Inhalative	LC50/4 h	3,590 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)

153233-91-1 etoxazol

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>1.09 mg/L (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)

None of the ingredients is listed.

NTP (National Toxicology Program)

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.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 6)

- **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

- | | |
|---|----------------------------|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE |
| · IMDG, IATA | ACETONITRILE |
| · Transport hazard class(es) | |
| · DOT, TDG, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, TDG, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E, S-E |
| · Stowage Category | B |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 7)

· Transport/Additional information:
· DOT
· Quantity limitations

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· TDG
· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· 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, 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

74051-80-2 sethoxydim

· TSCA (Toxic Substances Control Act):

75-05-8 acetonitrile

· Canadian substance listings:
· Canadian Domestic Substances List (DSL)

75-05-8 acetonitrile

74051-80-2 sethoxydim

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

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.

· Department issuing SDS: Document Control / Regulatory
· Contact: regulatory@ultrasci.com
· Date of the latest revision of the safety data sheet 04/01/2019 / 2

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 7 (1X1 mL)

(Contd. of page 8)

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 8 (1X1 mL)
- **Part number:** PSM-105-J
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.923% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 4)

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

Boiling point/Boiling range: 81 °C

· Flash point: 2 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 525 °C

· 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: 0 hPa

· Density at 20 °C: 0.786 g/cm³

· 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: Not determined.

Kinematic: Not determined.

· Solvent content:

Organic solvents: 0.0 %

· 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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 5)

- **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	1,321 mg/kg (rat)
Dermal	LD50	>2,002 mg/kg (rabbit)
Inhalative	LC50/4 h	3,590 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)

- **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.

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.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 6)

- **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

- | | |
|---|---|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE |
| · IMDG, IATA | ACETONITRILE |
| · Transport hazard class(es) | |
| · DOT, TDG, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, TDG, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E, <u>S</u> -E |
| · Stowage Category | B |
| · 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 |

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

(Contd. of page 7)

· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 3, II

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

919-86-8	demeton-S-methyl (ISO)
----------	------------------------

· Section 313 (Specific toxic chemical listings):

75-05-8	acetonitrile
---------	--------------

· TSCA (Toxic Substances Control Act):

75-05-8	acetonitrile
---------	--------------

919-86-8	demeton-S-methyl (ISO)
----------	------------------------

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

75-05-8	acetonitrile
---------	--------------

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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)

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 8 (1X1 mL)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

(Contd. of page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC Pesticide Standard no. 9 (1X1 mL)
- **Part number:** PSM-105-K
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.93% w/w
---------	--------------	------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet
according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 4)

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

Boiling point/Boiling range: 81 °C

· **Flash point:** 2 °C· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 525 °C· **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:** 0 hPa· **Density at 20 °C:** 0.786 g/cm³· **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: Not determined.

Kinematic: Not determined.

· **Solvent content:**

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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 5)

- **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	1,321 mg/kg (rat)
Dermal	LD50	>2,001 mg/kg (rabbit)
Inhalative	LC50/4 h	3,590 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)

120162-55-2 thiabendazol (ISO)

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.84 mg/L (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)

None of the ingredients is listed.

NTP (National Toxicology Program)

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.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 6)

- **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

· Not Regulated, De minimus Quantities	-
· UN-Number	
· DOT, TDG, IMDG, IATA	UN1648
· UN proper shipping name	
· DOT	Acetonitrile
· TDG	1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS
· IMDG	ACETONITRILE, MARINE POLLUTANT
· IATA	ACETONITRILE
· Transport hazard class(es)	
· DOT, IATA	
	
· Class	3 Flammable liquids
· Label	3
· TDG, IMDG	
 	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II

(Contd. on page 8)

-CA-

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 7)

· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S-E</u>
· Stowage Category	B
· 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
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 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

64902-72-3 | 2-chloro-N-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]benzenesulphonamide

· TSCA (Toxic Substances Control Act):

75-05-8 | acetonitrile

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

75-05-8 | acetonitrile

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC Pesticide Standard no. 9 (1X1 mL)

(Contd. of page 8)

· Canadian Ingredient Disclosure list (limit 1%)

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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC/GC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-L
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.891% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 4)

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
Boiling point/Boiling range:	81 °C
· Flash point:	2 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	525 °C
· 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:	0 hPa
· Density at 20 °C:	0.786 g/cm ³
· 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
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.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 5)

- **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	1,321 mg/kg (rat)
Dermal	LD50	>2,002 mg/kg (rabbit)
Inhalative	LC50/4 h	3,591 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)

- **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.

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.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 6)

- **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

- | | |
|---|---|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE |
| · IMDG, IATA | ACETONITRILE |
| · Transport hazard class(es) | |
| · DOT, TDG, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, TDG, IMDG, IATA | II |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 33 |
| · EMS Number: | F-E, <u>S</u> -E |
| · Stowage Category | B |
| · 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 |

(Contd. on page 8)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 7)

· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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, 3, II

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

950-37-8 | methidathion

· Section 313 (Specific toxic chemical listings):

75-05-8 | acetonitrile

21087-64-9 | metribuzin (ISO)

· TSCA (Toxic Substances Control Act):

75-05-8 | acetonitrile

· Canadian substance listings:

· Canadian Domestic Substances List (DSL)

75-05-8 | acetonitrile

· Canadian Ingredient Disclosure list (limit 0.1%)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 1%)

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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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)

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 1 (1X1 mL)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

(Contd. of page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** LC/GC Pesticide Standard no. 2 (1X1 mL)
- **Part number:** PSM-105-M
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.



GHS07

Acute Toxicity (Oral) - Category 4 H302 Harmful if swallowed.

Eye Irritation - Category 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 vapour.
Harmful if swallowed.
Causes serious eye irritation.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 1)

Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof [electrical/ventilating/lighting] equipment.
 Use non-sparking tools.
 Take actions to prevent static discharges.
 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 [or 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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-05-8	acetonitrile	99.917% w/w
---------	--------------	-------------

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.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 3)

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

EL	Long-term value: 20 ppm Skin
EV	Long-term value: 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

CA

(Contd. on page 5)



Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 4)

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**Boiling point/Boiling range:** 81 °C**· Flash point:** 2 °C**· Flammability (solid, gaseous):** Not applicable.**· Ignition temperature:** 525 °C**· 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:** 0 hPa**· Density at 20 °C:** 0.786 g/cm³**· 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:** Not determined.**Kinematic:** Not determined.**· Solvent content:****Organic solvents:** 0.0 %**Solids content:** 0.1 %**· Other information** No further relevant information available.

10 Stability and reactivity

· Reactivity No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 5)

- **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	1,321 mg/kg (rat)
Dermal	LD50	>2,002 mg/kg (rabbit)
Inhalative	LC50/4 h	3,590 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)

298-02-2 phorate (ISO)

Oral	LD50	1.6 mg/kg (rat)
Dermal	LD50	2.5 mg/kg (rat)

22224-92-6 fenamiphos (ISO)

Oral	LD50	10 mg/kg (rat)
Dermal	LD50	80 mg/kg (rat)
Inhalative	LC50/4 h	91 mg/L (rat)

7786-34-7 mevinphos (ISO)

Oral	LD50	3 mg/kg (rat)
Dermal	LD50	4 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)**

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 6)

· NTP (National Toxicology Program)

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

- | | |
|---|--|
| · Not Regulated, De minimus Quantities | - |
| · UN-Number | |
| · DOT, TDG, IMDG, IATA | UN1648 |
| · UN proper shipping name | |
| · DOT | Acetonitrile |
| · TDG | 1648 ACETONITRILE, ENVIRONMENTALLY HAZARDOUS |
| · IMDG | ACETONITRILE, MARINE POLLUTANT |
| · IATA | ACETONITRILE |

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 7)

· **Transport hazard class(es)**

· **DOT, IATA**

· **Class**

3 Flammable liquids

· **Label**

3

· **TDG, IMDG**

· **Class**

3 Flammable liquids

· **Label**

3

· **Packing group**

· **DOT, TDG, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (TDG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids

· **Danger code (Kemler):**

33

· **EMS Number:**

F-E,S-E

· **Stowage Category**

B

· **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

· **TDG**

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **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, 3, II, ENVIRONMENTALLY HAZARDOUS

CA

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

(Contd. of page 8)

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

1563-66-2	carbofuran (ISO)
298-02-2	phorate (ISO)
60-51-5	dimethoate (ISO)
22224-92-6	fenamiphos (ISO)
7786-34-7	mevinphos (ISO)

· **Section 313 (Specific toxic chemical listings):**

75-05-8	acetonitrile
1563-66-2	carbofuran (ISO)
60-51-5	dimethoate (ISO)
40487-42-1	pendimethalin (ISO)
7786-34-7	mevinphos (ISO)
7287-19-6	prometryn
60207-90-1	propiconazole

· **TSCA (Toxic Substances Control Act):**

75-05-8	acetonitrile
1563-66-2	carbofuran (ISO)
60-51-5	dimethoate (ISO)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

75-05-8	acetonitrile
---------	--------------

· **Canadian Ingredient Disclosure list (limit 0.1%)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

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.

· **Department issuing SDS:** Document Control / Regulatory

· **Contact:** regulatory@ultrasci.com

· **Date of the latest revision of the safety data sheet** 04/01/2019 / 2

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

(Contd. on page 10)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: LC/GC Pesticide Standard no. 2 (1X1 mL)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· *** Data compared to the previous version altered.**

(Contd. of page 9)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

1 Identification

- **Product identifier**
- **Trade name:** GC/LC Pesticide Standard no. 1 (1X1 mL)
- **Part number:** PSM-105-N
- **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 identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H336 May cause drowsiness or dizziness.

- **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:**
acetone
- **Hazard statements**
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

(Contd. on page 2)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 1)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof [electrical/ventilating/lighting] equipment.
Use non-sparking tools.
Take actions to prevent static discharges.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a poison center/doctor if you feel unwell.
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 container tightly closed.
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)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/Information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

67-64-1	acetone	99.931% w/w
---------	---------	-------------

4 First aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **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:** If symptoms persist consult doctor.

(Contd. on page 3)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 2)

- **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 Firefighting 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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **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.

CA

(Contd. on page 4)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 3)

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:**

67-64-1 acetone

EL	Short-term value: 500 ppm Long-term value: 250 ppm
EV	Short-term value: 750 ppm Long-term value: 500 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

· **Eye protection:**



Tightly sealed goggles

CA

(Contd. on page 5)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 4)

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Fluid
Color:	Colorless
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-94.7 °C
Boiling point/Boiling range:	55 °C
· Flash point:	-17 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	465 °C
· 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:	2.6 Vol %
Upper:	13 Vol %
· Vapor pressure at 20 °C:	245.3 hPa
· Density at 20 °C:	0.791 g/cm ³
· 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:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.9 %
Solids content:	0.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 5)

- **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:**

67-64-1 acetone

Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

15972-60-8 alachlor (ISO)

Oral	LD50	930 mg/kg (rat)
Dermal	LD50	3,500 mg/kg (rabbit)

- **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:
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.

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 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

(Contd. on page 7)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

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

(Contd. of page 6)

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

- **Not Regulated, De minimus Quantities** -
- **UN-Number**
- **DOT, TDG, IMDG, IATA** UN1090
- **UN proper shipping name**
- **DOT** Acetone
- **TDG** 1090 ACETONE, ENVIRONMENTALLY HAZARDOUS
- **IMDG** ACETONE, MARINE POLLUTANT
- **IATA** ACETONE
- **Transport hazard class(es)**
- **DOT, IATA**
- 
- **Class** 3 Flammable liquids
- **Label** 3
- **TDG, IMDG**
- 

- **Class** 3 Flammable liquids
- **Label** 3
- **Packing group**
- **DOT, TDG, IMDG, IATA** II
- **Environmental hazards:**
- **Marine pollutant:** Symbol (fish and tree)
- **Special marking (TDG):** Symbol (fish and tree)
- **Special precautions for user** Warning: Flammable liquids
- **Danger code (Kemler):** 33
- **EMS Number:** F-E,S-E

(Contd. on page 8)

CA

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 7)

· Stowage Category	B
· Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· 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 1090 ACETONE, 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

· **Section 313 (Specific toxic chemical listings):**

133-07-3 folpet (ISO)

15972-60-8 alachlor (ISO)

35554-44-0 imazalil (ISO)

· **TSCA (Toxic Substances Control Act):**

67-64-1 acetone

133-07-3 folpet (ISO)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

67-64-1 acetone

133-07-3 folpet (ISO)

1085-98-9 dichlofluanid (ISO)

731-27-1 tolylfluanid (ISO)

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

All ingredients are listed.

(Contd. on page 9)

Safety Data Sheet

according to HPR, Schedule 1

Printing date 04/01/2019

Version Number 3

Reviewed on 03/31/2019

Trade name: GC/LC Pesticide Standard no. 1 (1X1 mL)

(Contd. of page 8)

· **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.

- **Department issuing SDS:** Document Control / Regulatory
- **Contact:** regulatory@ultrasci.com
- **Date of the latest revision of the safety data sheet** 04/01/2019 / 2
- **Abbreviations and acronyms:**
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - 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)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**

CA