Safety Data Sheet
according to HPR, Schedule 1

Printing date 03/30/2019 Version Number 2 Reviewed on 03/30/2019

1 Identification

· **Product identifier**

· **Trade name: Organochlorine Pesticides Standard (1X1 mL)**

· **Part number:** PPM-808F-1
· **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use

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

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

2 Hazard identification

· **Classification of the substance or mixture**

GHS02 Flame

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

GHS08 Health hazard

Germ Cell Mutagenicity - Category 1B	H340 May cause genetic defects.
Carcinogenicity – Category 2	H351 Suspected of causing cancer.
Reproductive Toxicity - Category 1A	H360 May damage fertility or the unborn child.
Specific Target Organ Toxicity - Repeated Exposure - Category 2	H373 May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard - Category 1	H304 May be fatal if swallowed and enters airways.

GHS07

Skin Irritation - Category 2	H315 Causes skin 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 GHS08

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· **Signal word** Danger

· **Hazard-determining components of labeling:**
toluene
1,2-dibromo-3-chloropropane
n-hexane
hexachlorobenzene

· **Hazard statements**
Highly flammable liquid and vapour.
Causes skin irritation.
May cause genetic defects.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.

· **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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.
Do not breathe 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 swallowed: Immediately call a poison center/doctor.
Specific treatment (see on this label).
Do NOT induce vomiting.
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 exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: 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)**

Health = 1
Fire = 3
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

Health = *1
Fire = 3
Reactivity = 0

3 Composition/Information on ingredients

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

· **Dangerous components:**		
108-88-3	toluene	56.368% w/w
110-54-3	n-hexane	42.845% w/w
96-12-8	1,2-dibromo-3-chloropropane	0.131% w/w
118-74-1	hexachlorobenzene	0.131% 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:** In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 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**
During heating or in case of fire poisonous gases are produced.
· **Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
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.
Open and handle receptacle with care.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

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

8 Exposure controls/ Personal protection

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

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
108-88-3 toluene	
EL	Long-term value: 20 ppm R
EV	Long-term value: 20 ppm
110-54-3 n-hexane	
EL	Long-term value: 20 ppm Skin

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EV	Long-term value: 176 mg/m³, 50 ppm
96-12-8 1,2-dibromo-3-chloropropane	
EL	IARC 2B
118-74-1 hexachlorobenzene	
EL	Long-term value: 0.002 mg/m³ Skin; IARC 2B
EV	Long-term value: 0.002 mg/m³ 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.
Store protective clothing separately.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
· **Protection of hands:**
Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.
· **Material of gloves**
For normal use: nitrile rubber, 11-13 mil thickness
For direct contact with the chemical: butyl rubber, 12-15 mil thickness
· **Penetration time of glove material**
For normal use: nitrile rubber: 1 hour
For direct contact with the chemical: butyl rubber: >4 hours
· **Eye protection:**

Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**
Form: Fluid

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Color:	According to product specification
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	69 °C
· **Flash point:**	-22 °C
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	240 °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:	1.2 Vol %
Upper:	7.4 Vol %
· **Vapor pressure at 20 °C:**	110 hPa
· **Density:**	Not determined.
· **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:	99.3 %
Solids content:	0.3 %
· **Other information**	No further relevant information available.

10 Stability and reactivity

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

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· **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	3,563 mg/kg (rat)
Dermal	LD50	4,929 mg/kg
Inhalative	LC50/4 h	42.8 mg/L

108-88-3 toluene		
Oral	LD50	5,580 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	5,320 mg/L (mouse)
		28.1 mg/L (rat)
110-54-3 n-hexane		
Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	3,000 mg/kg (rabbit)
96-12-8 1,2-dibromo-3-chloropropane		
Oral	LD50	170 mg/kg (rat)
Dermal	LD50	1,420 mg/kg (rat)
		1,400 mg/kg (rabbit)
118-74-1 hexachlorobenzene		
Oral	LD50	10,000 mg/kg (rat)
Inhalative	LC50/4 h	3,600 mg/L (rat)
77-47-4 hexachlorocyclopentadiene		
Oral	LD50	315 mg/kg (rat)
Dermal	LD50	430 mg/kg (rabbit)
Inhalative	LC50/4 h	2 mg/L (rat)
465-73-6 isodrin		
Oral	LD50	7 mg/kg (rat)
Dermal	LD50	23 mg/kg (rat)
2303-16-4 di-allate (ISO)		
Oral	LD50	395 mg/kg (rat)
510-15-6 chlorobenzilate (ISO)		
Oral	LD50	700 mg/kg (rat)
Dermal	LD50	>1,000 mg/kg (rabbit)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.

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· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
The product can cause inheritable damage.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
108-88-3	toluene	3
96-12-8	1,2-dibromo-3-chloropropane	2B
118-74-1	hexachlorobenzene	2B
2303-16-4	di-allate (ISO)	3
510-15-6	chlorobenzilate (ISO)	3

· **NTP (National Toxicology Program)**		
96-12-8	1,2-dibromo-3-chloropropane	R
118-74-1	hexachlorobenzene	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 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely 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** -

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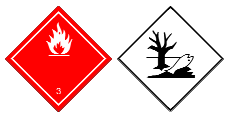
· **UN-Number**	
· **DOT, TDG, IMDG, IATA**	UN1993
· **UN proper shipping name**	
· **DOT**	Flammable liquids, n.o.s. (Hexanes, Toluene)
· **TDG**	1993 FLAMMABLE LIQUID, N.O.S. (HEXANES, TOLUENE), ENVIRONMENTALLY HAZARDOUS
· **IMDG**	FLAMMABLE LIQUID, N.O.S. (HEXANES, TOLUENE), MARINE POLLUTANT
· **IATA**	FLAMMABLE LIQUID, N.O.S. (HEXANES, TOLUENE)
· **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:**	Product contains environmentally hazardous substances: di-allate (ISO), isodrin
· **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

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· **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 1993 FLAMMABLE LIQUID, N.O.S. (HEXANES, TOLUENE), 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):**	
77-47-4	hexachlorocyclopentadiene
465-73-6	isodrin

· **Section 313 (Specific toxic chemical listings):**
All ingredients are listed.

· **TSCA (Toxic Substances Control Act):**	
108-88-3	toluene
110-54-3	n-hexane
96-12-8	1,2-dibromo-3-chloropropane
118-74-1	hexachlorobenzene
77-47-4	hexachlorocyclopentadiene
465-73-6	isodrin
510-15-6	chlorobenzilate (ISO)

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**	
108-88-3	toluene
110-54-3	n-hexane
118-74-1	hexachlorobenzene
77-47-4	hexachlorocyclopentadiene

· **Canadian Ingredient Disclosure list (limit 0.1%)**	
96-12-8	1,2-dibromo-3-chloropropane

· **Canadian Ingredient Disclosure list (limit 1%)**
All ingredients are listed.

· **National regulations:**
· **Additional classification according to Decree on Hazardous Materials:**
Carcinogenic hazardous material group III (dangerous).
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

CA

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16 Other information

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

· **Department issuing SDS:** Document Control / Regulatory
· **Contact:** regulatory@ultrasci.com
· **Date of the latest revision of the safety data sheet** 03/30/2019 / 1
· **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