

Safety Data Sheet

according to HPR, Schedule 1

Printing date 07/05/2024

Version Number 5

Reviewed on 07/05/2024

1 Identification

- **Product identifier**
- **Trade name:** Organochlorine Pesticides Standard (1X1 mL)
- **Part number:** PPM-508B-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.



GHS06 Skull and crossbones

Acute Toxicity (Dermal) – Category 3

H311 Toxic in contact with skin.



GHS08 Health hazard

Carcinogenicity - Category 1A

H350 May cause cancer.



GHS07

Acute Toxicity (Oral) - Category 4

H302 Harmful if swallowed.

Skin Irritation - Category 2

H315 Causes skin irritation.

Reproductive Toxicity - Effects on or via Lactation H362 May cause harm to breast-fed children.

- **Label elements**

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

- **Hazard pictograms**



GHS02



GHS06



GHS07



GHS08

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· **Signal word** Danger

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

tert-butyl methyl ether

endosulfan sulfate

DDT (common name not adopted by ISO)

dieldrin (ISO)

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H350 May cause cancer.

H362 May cause harm to breast-fed children.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P263 Avoid contact during pregnancy and while nursing.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground and bond container and receiving equipment.

P233 Keep container tightly closed.

P242 Use non-sparking tools.

P243 Take actions to prevent static discharges.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P322 Specific measures (see on this label).

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P330 Rinse mouth.

P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**


Health = 2

Fire = 3

Reactivity = 0

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· HMIS-ratings (scale 0 - 4)

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

3 Composition/Information on ingredients

· Chemical characterization: Mixtures

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

· Dangerous components:

1634-04-4	tert-butyl methyl ether	80-100% w/w *
50-29-3	DDT (common name not adopted by ISO)	0.1-1% w/w *
58-89-9	γ -HCH or γ -BHC	0.1-1% w/w *
60-57-1	dieldrin (ISO)	0.1-1% w/w *
72-20-8	endrin (ISO)	0.1-1% w/w *
72-43-5	methoxychlor	0.1-1% w/w *
72-54-8	TDE	0.1-1% w/w *
72-55-9	2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	0.1-1% w/w *
76-44-8	heptachlor (ISO)	0.1-1% w/w *
309-00-2	aldrin (ISO)	0.1-1% w/w *
319-84-6	alpha-BHC (alpha-HCH)	0.1-1% w/w *
319-85-7	(1alpha,2beta,3alpha,4beta,5alpha,6beta)-1,2,3,4,5,6-hexachlorocyclohexane	0.1-1% w/w *
319-86-8	delta-BHC (delta-HCH)	0.1-1% w/w *
959-98-8	endosulfan I	0.1-1% w/w *
1024-57-3	heptachlor epoxide - isomer B	0.1-1% w/w *
1031-07-8	endosulfan sulfate	0.1-1% w/w *
33213-65-9	endosulfan II	0.1-1% w/w *

* Actual concentration ranges are withheld as a trade secret.

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.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **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. Then consult a doctor.

· **After swallowing:** Immediately call a doctor.

· Information for doctor:

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

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

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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 section 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.

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

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8 Exposure controls/ Personal protection

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

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**
1634-04-4 tert-butyl methyl ether

EL TWA: 50 ppm

EV TWA: 40 ppm

1024-57-3 heptachlor epoxide - isomer B

EL TWA: 0.05 mg/m³

Skin

EV TWA: 0.05 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

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Color:	Colorless
Odor:	Characteristic
Odor threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	55.2 °C

· Flash point: 0 °C

· Flammability (solid, gaseous): Highly flammable.

· Auto igniting: 374 °C

· Decomposition temperature: Not determined.

· Ignition temperature: Product is not selfigniting.

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

· Explosion limits:

Lower:	1.6 Vol %
Upper:	8.4 Vol %

· Vapor pressure at 20 °C: 279 hPa

· Density at 20 °C: 0.74 g/cm³

· Relative density: Not determined.

· Vapor density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water at 25 °C: 51 g/l

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

· Viscosity:

Dynamic at 20 °C:	0.27 mPas
Kinematic:	Not determined.

· Solvent content:

Organic solvents: 97.8 %

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Solids content:	2.3 %
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· Other information	No further relevant information available.
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10 Stability and reactivity

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

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**
ATE (Acute Toxicity Estimate)

Oral	LD50	1,256 mg/kg
Dermal	LD50	806 mg/kg

1634-04-4 tert-butyl methyl ether

Oral	LD50	4,000 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	23,576 mg/L (rat)

50-29-3 DDT (common name not adopted by ISO)

Oral	LD50	87 mg/kg (rat)
Dermal	LD50	2,510 mg/kg (rat)
		300 mg/kg (rabbit)

58-89-9 γ -HCH or γ -BHC

Oral	LD50	88 mg/kg (rat)
Dermal	LD50	900 mg/kg (rat)
Inhalative	LC50/4 h	1,560 mg/L (rat)

60-57-1 dieldrin (ISO)

Oral	LD50	38 mg/kg (mouse)
		38 mg/kg (rat)
Dermal	LD50	10 mg/kg (rat)
		250 mg/kg (rabbit)

72-20-8 endrin (ISO)

Oral	LD50	3 mg/kg (rat)
Dermal	LD50	60 mg/kg (rat)

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		60 mg/kg (rabbit)
72-43-5 methoxychlor		
Oral	LD50	1,855 mg/kg (rat)
Dermal	LD50	6,000 mg/kg (rat)
72-54-8 TDE		
Dermal	LD50	1,200 mg/kg (rabbit)
72-55-9 2,2-bis(p-chlorophenyl)-1,1-dichloroethylene		
Oral	LD50	880 mg/kg (rat)
76-44-8 heptachlor (ISO)		
Oral	LD50	40 mg/kg (rat)
Dermal	LD50	119 mg/kg (rat)
309-00-2 aldrin (ISO)		
Oral	LD50	39 mg/kg (rat)
Dermal	LD50	98 mg/kg (rat)
		15 mg/kg (rabbit)
319-84-6 alpha-BHC (alpha-HCH)		
Oral	LD50	177 mg/kg (rat)
319-85-7 (1alpha,2beta,3alpha,4beta,5alpha,6beta)-1,2,3,4,5,6-hexachlorocyclohexane		
Oral	LD50	6,000 mg/kg (rat)
319-86-8 delta-BHC (delta-HCH)		
Oral	LD50	1,000 mg/kg (rat)
959-98-8 endosulfan I		
Oral	LD50	76 mg/kg (rat)
1024-57-3 heptachlor epoxide - isomer B		
Oral	LD50	15 mg/kg (rat)
1031-07-8 endosulfan sulfate		
Oral	LD50	18 mg/kg (rat)
33213-65-9 endosulfan II		
Oral	LD50	240 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

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

Toxic

Harmful

Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

1634-04-4	tert-butyl methyl ether	3
50-29-3	DDT (common name not adopted by ISO)	2A

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58-89-9	γ -HCH or γ -BHC	1
60-57-1	dieldrin (ISO)	2A
72-20-8	endrin (ISO)	3
72-43-5	methoxychlor	3
76-44-8	heptachlor (ISO)	2B
309-00-2	aldrin (ISO)	2A
319-84-6	alpha-BHC (alpha-HCH)	2B
319-85-7	(1alpha,2 β ,3alpha,4 β ,5alpha,6 β)-1,2,3,4,5,6-hexachlorocyclohexane	2B
1024-57-3	heptachlor epoxide - isomer B	2B

· NTP (National Toxicology Program)

50-29-3	DDT (common name not adopted by ISO)	R
58-89-9	γ -HCH or γ -BHC	R
319-84-6	alpha-BHC (alpha-HCH)	R
319-85-7	(1alpha,2 β ,3alpha,4 β ,5alpha,6 β)-1,2,3,4,5,6-hexachlorocyclohexane	R
319-86-8	delta-BHC (delta-HCH)	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 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.

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14 Transport information

· Not Regulated, De minimis Quantities

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· UN-Number

· DOT/TDG, ADR, IMDG, IATA

UN2350

· UN proper shipping name

· DOT/TDG

· ADR

Butyl methyl ether solution

2350 Butyl methyl ether solution, ENVIRONMENTALLY
HAZARDOUS

· IMDG

· IATA

BUTYL METHYL ETHER solution, MARINE POLLUTANT
BUTYL METHYL ETHER solution

· Transport hazard class(es)

· DOT/TDG (Transport dangerous goods):



· Class

3 Flammable liquids

· Label

3

· ADR, IMDG



· Class

3 Flammable liquids

· Label

3

· IATA



· Class

3 Flammable liquids

· Label

3

· Packing group

· DOT/TDG, ADR, IMDG, IATA

II

· Environmental hazards:

Product contains environmentally hazardous substances: dieldrin
(ISO)

· Marine pollutant:

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special precautions for user

Warning: Flammable liquids

· Hazard identification number (Kemler code): 33

· EMS Number:

F-E,S-D

· Stowage Category

B

· Stowage Code

SW2 Clear of living quarters.

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- | | |
|--|---|
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT/TDG | |
| · Quantity limitations | On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L |
| ----- | |
| · ADR | |
| · 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 2350 BUTYL METHYL ETHER SOLUTION, 3, II,
ENVIRONMENTALLY HAZARDOUS |

15 Regulatory information

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

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

58-89-9	γ -HCH or γ -BHC
72-20-8	endrin (ISO)
309-00-2	aldrin (ISO)

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

1634-04-4	tert-butyl methyl ether
58-89-9	γ -HCH or γ -BHC
72-43-5	methoxychlor
76-44-8	heptachlor (ISO)
309-00-2	aldrin (ISO)
319-84-6	alpha-BHC (alpha-HCH)

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

1634-04-4	tert-butyl methyl ether	ACTIVE
50-29-3	DDT (common name not adopted by ISO)	ACTIVE
58-89-9	γ -HCH or γ -BHC	ACTIVE
319-84-6	alpha-BHC (alpha-HCH)	ACTIVE
319-85-7	(1alpha,2β,3alpha,4β,5alpha,6β)-1,2,3,4,5,6-hexachlorocyclohexane	ACTIVE
319-86-8	delta-BHC (delta-HCH)	ACTIVE

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

1634-04-4	tert-butyl methyl ether
58-89-9	γ -HCH or γ -BHC
72-43-5	methoxychlor

· **Canadian Non-Domestic Substances List (NDSL)**

319-86-8	delta-BHC (delta-HCH)
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· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **National regulations:**· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

· **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:** pdl-acg-regulatory-cq@agilent.com· **Date of the latest revision of the safety data sheet** 07/05/2024 / 4· **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.**

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