

Safety Data Sheet

according to HPR, Schedule 1

Printing date 07/04/2024

Version Number 5

Reviewed on 07/04/2024

1 Identification

- **Product identifier**
- **Trade name:** CLP Volatiles Standard (1X1 mL)
- **Part number:** CLP-158-1
- **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 (Inhalation) - Category 3

H331 Toxic if inhaled.



GHS08 Health hazard

Specific Target Organ Toxicity - Single Exposure -
Category 1

H370 Causes damage to the central nervous system and
the visual organs.

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



GHS02



GHS06



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
methanol
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H331 Toxic if inhaled.
H370 Causes damage to the central nervous system and the visual organs.

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· 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.
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.
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.
P271 Use only outdoors or in a well-ventilated area.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P321 Specific treatment (see on this label).
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
P308+P311 IF exposed or concerned: Call a poison center/doctor.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
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)



· 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:

67-56-1	methanol	80-100% w/w *
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* Actual concentration ranges are withheld as a trade secret.

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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
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:** 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 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.

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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 section 7.

· **Control parameters**

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

67-56-1 methanol

EL	STEL: 250 ppm TWA: 200 ppm Skin
EV	STEL: 325 mg/m ³ , 250 ppm TWA: 260 mg/m ³ , 200 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.

Store protective clothing separately.

· **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

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



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Color:	Colorless
Odor:	Alcohol-like
Odor threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range:	-98 °C
Boiling point/Boiling range:	64.7 °C

· Flash point: 9 °C

· Flammability (solid, gaseous): Highly flammable.

· Auto igniting: 455 °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:	5.5 Vol %
Upper:	44 Vol %

· Vapor pressure at 20 °C: 100 hPa

Density at 20 °C:	0.80295 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.

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Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.7 %
Solids content:	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.
- **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)

Inhalative LC50/4 h 3.02 mg/L

67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **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

- **Carcinogenic categories**

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

56-23-5	carbon tetrachloride	2B
67-66-3	trichloromethane	2B
71-43-2	benzene	1
71-55-6	1,1,1-trichloroethane	2A
74-83-9	bromomethane	3
74-87-3	chloromethane	3
75-00-3	chloroethane	3

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75-01-4	vinyl chloride	1
75-09-2	dichloromethane	2A
75-25-2	bromoform	3
75-27-4	bromodichloromethane	2B
75-35-4	1,1-dichloroethylene	2B
78-87-5	1,2-dichloropropane	1
79-00-5	1,1,2-trichloroethane	3
79-01-6	trichloroethylene	1
79-34-5	1,1,2,2-tetrachloroethane	2B
95-47-6	o-xylene	3
95-50-1	1,2-dichlorobenzene	3
96-12-8	1,2-dibromo-3-chloropropane	2B
98-82-8	Cumene	2B
100-41-4	ethylbenzene	2B
100-42-5	styrene	2A
106-42-3	p-xylene	3
106-46-7	1,4-dichlorobenzene	2B
106-93-4	1,2-dibromoethane	2A
107-06-2	1,2-dichloroethane	2B
108-10-1	4-methylpentan-2-one	2B
108-38-3	m-xylene	3
108-88-3	toluene	3
124-48-1	dibromochloromethane	3

NTP (National Toxicology Program)

56-23-5	carbon tetrachloride	R
67-66-3	trichloromethane	R
71-43-2	benzene	K
75-01-4	vinyl chloride	K
75-09-2	dichloromethane	R
75-27-4	bromodichloromethane	R
79-01-6	trichloroethylene	K
96-12-8	1,2-dibromo-3-chloropropane	R
98-82-8	Cumene	R
100-42-5	styrene	R
106-46-7	1,4-dichlorobenzene	R
106-93-4	1,2-dibromoethane	R
107-06-2	1,2-dichloroethane	R
127-18-4	tetrachloroethylene	R

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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 minimis Quantities | - |
| · UN-Number | |
| · DOT/TDG, ADR, IMDG, IATA | UN1230 |
| · UN proper shipping name | |
| · DOT/TDG | Methanol solution |
| · ADR | 1230 Methanol solution |
| · IMDG, IATA | METHANOL solution |
| · Transport hazard class(es) | |
| · DOT/TDG (Transport dangerous goods): | |
|   | |
| · Class | 3 Flammable liquids |

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· **Label** 3, 6.1

· **ADR**

· **Class** 3 Flammable liquids
· **Label** 3+6.1

· **IMDG**

· **Class** 3 Flammable liquids
· **Label** 3/6.1

· **IATA**

· **Class** 3 Flammable liquids
· **Label** 3 (6.1)

· **Packing group**
· **DOT/TDG, ADR, IMDG, IATA** II

· **Environmental hazards:** Not applicable.

· **Special precautions for user** Warning: Flammable liquids
· **Hazard identification number (Kemler code):** 336
· **EMS Number:** F-E,S-D
· **Stowage Category** B
· **Stowage Code** SW2 Clear of living quarters.

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

· **Transport/Additional information:**

· **DOT/TDG**
· **Quantity limitations** On passenger aircraft/rail: 1 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

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· 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 1230 METHANOL SOLUTION, 3 (6.1), II

15 Regulatory information

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

No further relevant information available.

· Sara
· Section 355 (extremely hazardous substances):

67-66-3	trichloromethane
74-83-9	bromomethane
75-15-0	carbon disulphide
75-34-3	1,1-dichloroethane

· Section 313 (Specific toxic chemical listings):

67-56-1	methanol
56-23-5	carbon tetrachloride
67-66-3	trichloromethane
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
74-83-9	bromomethane
74-87-3	chloromethane
75-00-3	chloroethane
75-01-4	vinyl chloride
75-09-2	dichloromethane
75-15-0	carbon disulphide
75-25-2	bromoform
75-27-4	bromodichloromethane
75-34-3	1,1-dichloroethane
75-35-4	1,1-dichloroethylene
75-69-4	trichlorofluoromethane
75-71-8	dichlorodifluoromethane
76-13-1	1,1,2-trichlorotrifluoroethane
78-87-5	1,2-dichloropropane
79-00-5	1,1,2-trichloroethane
79-01-6	trichloroethylene
79-34-5	1,1,2,2-tetrachloroethane
95-47-6	o-xylene
95-50-1	1,2-dichlorobenzene
96-12-8	1,2-dibromo-3-chloropropane

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98-82-8	Cumene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene

· TSCA (Toxic Substances Control Act):

67-56-1	methanol	ACTIVE
56-23-5	carbon tetrachloride	ACTIVE
67-64-1	acetone	ACTIVE
67-66-3	trichloromethane	ACTIVE
71-43-2	benzene	ACTIVE
71-55-6	1,1,1-trichloroethane	ACTIVE
74-83-9	bromomethane	ACTIVE
74-87-3	chloromethane	ACTIVE
75-00-3	chloroethane	ACTIVE
75-01-4	vinyl chloride	ACTIVE
75-09-2	dichloromethane	ACTIVE
75-15-0	carbon disulphide	ACTIVE
75-25-2	bromoform	ACTIVE
75-27-4	bromodichloromethane	ACTIVE
75-34-3	1,1-dichloroethane	ACTIVE
75-35-4	1,1-dichloroethylene	ACTIVE
75-69-4	trichlorofluoromethane	ACTIVE
75-71-8	dichlorodifluoromethane	ACTIVE
76-13-1	1,1,2-trichlorotrifluoroethane	ACTIVE
78-87-5	1,2-dichloropropane	ACTIVE
78-93-3	butanone	ACTIVE
79-00-5	1,1,2-trichloroethane	ACTIVE
79-01-6	trichloroethylene	ACTIVE
79-20-9	methyl acetate	ACTIVE
79-34-5	1,1,2,2-tetrachloroethane	ACTIVE
95-47-6	o-xylene	ACTIVE
95-50-1	1,2-dichlorobenzene	ACTIVE
96-12-8	1,2-dibromo-3-chloropropane	ACTIVE
98-82-8	Cumene	ACTIVE
100-41-4	ethylbenzene	ACTIVE

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

67-56-1	methanol
56-23-5	carbon tetrachloride
67-64-1	acetone

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67-66-3	trichloromethane
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
74-83-9	bromomethane
74-87-3	chloromethane
75-00-3	chloroethane
75-01-4	vinyl chloride
75-09-2	dichloromethane
75-15-0	carbon disulphide
75-35-4	1,1-dichloroethylene
75-69-4	trichlorofluoromethane
75-71-8	dichlorodifluoromethane
76-13-1	1,1,2-trichlorotrifluoroethane
78-87-5	1,2-dichloropropane
78-93-3	butanone
79-01-6	trichloroethylene
79-20-9	methyl acetate
79-34-5	1,1,2,2-tetrachloroethane
95-47-6	o-xylene
95-50-1	1,2-dichlorobenzene
98-82-8	Cumene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene
106-93-4	1,2-dibromoethane
107-06-2	1,2-dichloroethane

· Canadian Non-Domestic Substances List (NDSL)

75-27-4	bromodichloromethane
75-34-3	1,1-dichloroethane
96-12-8	1,2-dibromo-3-chloropropane
124-48-1	dibromochloromethane
156-59-2	cis-dichloroethylene
10061-02-6	trans-1,3-dichloropropene

· 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.

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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:** pdl-acg-regulatory-cq@agilent.com
- **Date of the latest revision of the safety data sheet** 07/04/2024 / 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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