

# Safety Data Sheet

acc. to OSHA HCS

Revision date 08/24/2024

## 1 Identification

- **Product identifier**
- **Product Name:** VOC Standard (1X1 mL)
- **Part number:** PMX-220-1
- **Application of the substance / the mixture** Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Agilent Technologies, Inc.  
5301 Stevens Creek Blvd.  
Santa Clara, CA 95051 USA
- **Information department:**  
Telephone: 800-227-9770  
e-mail: pdl-msds\_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Toxicity - Inhalation 3

H331 Toxic if inhaled.



GHS08 Health hazard

Germ Cell Mutagenicity 1B

H340 May cause genetic defects.

Carcinogenicity 1B

H350 May cause cancer.

Toxic to Reproduction 1A

H360 May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure 1

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

Specific Target Organ Toxicity - Repeated Exposure 2

H373 May cause damage to the central nervous system, the kidneys and the cardiovascular system through prolonged or repeated exposure.



GHS07

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

- **Label elements**

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

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**· Hazard pictograms**

**· Signal word Danger**
**· Hazard-determining components of labeling:**

methanol  
1,2-dibromo-3-chloropropane  
1,2-dibromoethane  
carbon disulphide  
acrylonitrile

**· Hazard statements**

H225 Highly flammable liquid and vapor.  
H331 Toxic if inhaled.  
H317 May cause an allergic skin reaction.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H360 May damage fertility or the unborn child.  
H370 Causes damage to the central nervous system and the visual organs.  
H373 May cause damage to the central nervous system, the kidneys and the cardiovascular system through prolonged or repeated exposure.

**· Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P240 Ground/bond container and receiving equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
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.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
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/shower.  
P321 Specific treatment (see on this label).  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P363 Wash contaminated clothing before reuse.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P314 Get medical advice/attention if you feel unwell.  
P370+P378 In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
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.

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



- **HMIS-ratings (scale 0 - 4)**



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

## 3 Composition/information on ingredients

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

### · Dangerous components:

67-56-1	methanol	96.7136%
67-66-3	trichloromethane	0.2528%
75-15-0	carbon disulphide	0.2528%
75-25-2	bromoform	0.2528%
75-27-4	bromodichloromethane	0.2528%
96-12-8	1,2-dibromo-3-chloropropane	0.2528%
106-93-4	1,2-dibromoethane	0.2528%
107-13-1	acrylonitrile	0.2528%
108-10-1	4-methylpentan-2-one	0.2528%
591-78-6	hexan-2-one	0.2528%

## 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.  
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.

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- **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:**  
CO<sub>2</sub>, 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.
- **Protective Action Criteria for Chemicals**

#### · PAC-1:

67-56-1	methanol	530 ppm
67-64-1	acetone	200 ppm
67-66-3	trichloromethane	2 ppm
75-05-8	acetonitrile	13 ppm
75-15-0	carbon disulphide	13 ppm
75-25-2	bromoform	1.5 ppm
75-27-4	bromodichloromethane	1.3 mg/m <sup>3</sup>
78-93-3	butanone	200 ppm
96-12-8	1,2-dibromo-3-chloropropane	0.003 ppm
106-93-4	1,2-dibromoethane	17 ppm
107-13-1	acrylonitrile	0.15 ppm
108-10-1	4-methylpentan-2-one	75 ppm
124-48-1	dibromochloromethane	1.1 mg/m <sup>3</sup>

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591-78-6	hexan-2-one	10 ppm
<b>· PAC-2:</b>		
67-56-1	methanol	2,100 ppm
67-64-1	acetone	3200* ppm
67-66-3	trichloromethane	64 ppm
75-05-8	acetonitrile	50 ppm
75-15-0	carbon disulphide	160 ppm
75-25-2	bromoform	6.8 ppm
75-27-4	bromodichloromethane	14 mg/m <sup>3</sup>
78-93-3	butanone	2700* ppm
96-12-8	1,2-dibromo-3-chloropropane	2.2 ppm
106-93-4	1,2-dibromoethane	24 ppm
107-13-1	acrylonitrile	1.7 ppm
108-10-1	4-methylpentan-2-one	500 ppm
124-48-1	dibromochloromethane	12 mg/m <sup>3</sup>
591-78-6	hexan-2-one	830 ppm
<b>· PAC-3:</b>		
67-56-1	methanol	7200* ppm
67-64-1	acetone	5700* ppm
67-66-3	trichloromethane	3,200 ppm
75-05-8	acetonitrile	150 ppm
75-15-0	carbon disulphide	480 ppm
75-25-2	bromoform	41 ppm
75-27-4	bromodichloromethane	85 mg/m <sup>3</sup>
78-93-3	butanone	4000* ppm
96-12-8	1,2-dibromo-3-chloropropane	4.3 ppm
106-93-4	1,2-dibromoethane	46 ppm
107-13-1	acrylonitrile	28 ppm
108-10-1	4-methylpentan-2-one	3000* ppm
124-48-1	dibromochloromethane	73 mg/m <sup>3</sup>
591-78-6	hexan-2-one	5000* ppm

## 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.

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- **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:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

### 67-56-1 methanol

PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEIc

### 67-66-3 trichloromethane

PEL	Ceiling limit value: 240 mg/m <sup>3</sup> , 50 ppm
REL	Short-term value: 9.78* mg/m <sup>3</sup> , 2* ppm *60-min; See Pocket Guide App. A
TLV	Long-term value: 10 ppm A3

### 75-15-0 carbon disulphide

PEL	Long-term value: 20 ppm Ceiling limit value: 30; 100* ppm *30-min peak per 8-hr shift
REL	Short-term value: 30 mg/m <sup>3</sup> , 10 ppm Long-term value: 3 mg/m <sup>3</sup> , 1 ppm Skin
TLV	Long-term value: 1 ppm Skin, BEI, A4

### 75-25-2 bromoform

PEL	Long-term value: 5 mg/m <sup>3</sup> , 0.5 ppm Skin
REL	Long-term value: 5 mg/m <sup>3</sup> , 0.5 ppm Skin

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TLV	Long-term value: 0.5 ppm A3
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**96-12-8 1,2-dibromo-3-chloropropane**

PEL	Long-term value: 0.001 ppm see 29 CFR 1910.1044
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REL	See Pocket Guide App. A
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**106-93-4 1,2-dibromoethane**

PEL	Long-term value: 20 ppm Ceiling limit value: 30; 50* ppm *5-min peak per 8-hr shift
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REL	Long-term value: 0.045 ppm Ceiling limit value: 0.13* ppm *15-min; See Pocket Guide App. A
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TLV	Skin, A3
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**107-13-1 acrylonitrile**

PEL	Long-term value: 2 ppm Ceiling limit value: 10* ppm *15 Min., Skin; see 29 CRF 1910.1045
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REL	Long-term value: 1 ppm Ceiling limit value: 10* ppm *15-min; Skin; See Pocket Guide App. A
-----	--

TLV	Long-term value: 2 ppm Skin, A3
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**108-10-1 4-methylpentan-2-one**

PEL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
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REL	Short-term value: 300 mg/m <sup>3</sup> , 75 ppm Long-term value: 205 mg/m <sup>3</sup> , 50 ppm
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TLV	Short-term value: 75 ppm Long-term value: 20 ppm BEI, A3
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**591-78-6 hexan-2-one**

PEL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
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REL	Long-term value: 4 mg/m <sup>3</sup> , 1 ppm
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TLV	Short-term value: 10 ppm Long-term value: 5 ppm Skin
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**· Ingredients with biological limit values:**
**67-56-1 methanol**

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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**75-15-0 carbon disulphide**

BEI	0.5 mg/g creatinine Medium: urine Time: end of shift Parameter: 2-Thioxothiazolidine-4-carboxylic acid (background, nonspecific)
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**108-10-1 4-methylpentan-2-one**

BEI	1 mg/L Medium: urine Time: end of shift Parameter: MIBK
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**591-78-6 hexan-2-one**

BEI	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis
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· **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

· **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

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## 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 (-144.4 °F)
Boiling point/Boiling range:	64.7 °C (148.5 °F)
· Flash point:	9 °C (48.2 °F)
· Flammability (solid, gaseous):	Highly flammable.
· Auto igniting:	455 °C (851 °F)
· 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 (68 °F):	100 hPa (75 mm Hg)
· Density at 20 °C (68 °F):	0.82215 g/cm <sup>3</sup> (6.86084 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	
Not determined.	
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	98.0 %
VOC content:	97.72 %
	803.4 g/l / 6.71 lb/gal
· Solids content:	0.0 %
· 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	10,909 mg/kg
Dermal	LD50	18,755 mg/kg
Inhalative	LC50/4 h	3.07 mg/L

### 67-56-1 methanol

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

### 67-66-3 trichloromethane

Oral	LD50	908 mg/kg (rat)
Dermal	LD50	75 mg/kg (rat)
		>20,000 mg/kg (rabbit)

### 75-15-0 carbon disulphide

Oral	LD50	1,200 mg/kg (rat)
Inhalative	LC50/4 h	10.35 mg/L (rat)

### 75-25-2 bromoform

Oral	LD50	933 mg/kg (rat)
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### 75-27-4 bromodichloromethane

Oral	LD50	450 mg/kg (mouse)
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### 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)

### 106-93-4 1,2-dibromoethane

Oral	LD50	108 mg/kg (rat)
		55 mg/kg (rabbit)
Dermal	LD50	300 mg/kg (rabbit)

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**107-13-1 acrylonitrile**

Oral	LD50	82 mg/kg (rat)
Dermal	LD50	226 mg/kg (rabbit)
Inhalative	LC50/4 h	2.09 mg/L (rat)

**108-10-1 4-methylpentan-2-one**

Oral	LD50	2,080 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rab) >16,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/L (ATE) >8.2 mg/L (rat)

**591-78-6 hexan-2-one**

Oral	LD50	2,590 mg/kg (rat)
Dermal	LD50	4,800 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/L (rat)

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

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

**· Sensitization:** Sensitization possible through skin contact.

**· Additional toxicological information:**

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

Toxic

Irritant

The product can cause inheritable damage.

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

67-66-3	trichloromethane	2B
75-25-2	bromoform	3
75-27-4	bromodichloromethane	2B
96-12-8	1,2-dibromo-3-chloropropane	2B
106-93-4	1,2-dibromoethane	2A
107-13-1	acrylonitrile	2B
108-10-1	4-methylpentan-2-one	2B
124-48-1	dibromochloromethane	3

**· NTP (National Toxicology Program)**

67-66-3	trichloromethane	R
75-27-4	bromodichloromethane	R
96-12-8	1,2-dibromo-3-chloropropane	R
106-93-4	1,2-dibromoethane	R
107-13-1	acrylonitrile	R

**· OSHA-Ca (Occupational Safety & Health Administration)**

96-12-8	1,2-dibromo-3-chloropropane	
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107-13-1 acrylonitrile



### 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 minimis Quantities** -
- **UN-Number**
- **DOT, IMDG, IATA** UN1230
- **UN proper shipping name**
- **DOT** Methanol solution
- **IMDG, IATA** METHANOL solution
- **Transport hazard class(es)**
- **DOT**
- 

- **Class** 3 Flammable liquids

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· **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, 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**  
· **Quantity limitations** On passenger aircraft/rail: 1 L  
On cargo aircraft only: 60 L

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

· **UN "Model Regulation":** UN 1230 METHANOL SOLUTION, 3 (6.1), II

## 15 Regulatory information

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

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

67-66-3	trichloromethane
75-15-0	carbon disulphide

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107-13-1 acrylonitrile

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

67-56-1 methanol

67-66-3 trichloromethane

75-05-8 acetonitrile

75-15-0 carbon disulphide

75-25-2 bromoform

75-27-4 bromodichloromethane

96-12-8 1,2-dibromo-3-chloropropane

106-93-4 1,2-dibromoethane

107-13-1 acrylonitrile

108-10-1 4-methylpentan-2-one

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

All components have the value ACTIVE.

**· Hazardous Air Pollutants**

67-56-1 methanol

67-66-3 trichloromethane

75-05-8 acetonitrile

75-15-0 carbon disulphide

75-25-2 bromoform

96-12-8 1,2-dibromo-3-chloropropane

106-93-4 1,2-dibromoethane

107-13-1 acrylonitrile

108-10-1 4-methylpentan-2-one

**· Proposition 65**
**· Chemicals known to cause cancer:**

67-66-3 trichloromethane

75-25-2 bromoform

75-27-4 bromodichloromethane

96-12-8 1,2-dibromo-3-chloropropane

106-93-4 1,2-dibromoethane

107-13-1 acrylonitrile

108-10-1 4-methylpentan-2-one

**· Chemicals known to cause reproductive toxicity for females:**

75-15-0 carbon disulphide

**· Chemicals known to cause reproductive toxicity for males:**

75-15-0 carbon disulphide

96-12-8 1,2-dibromo-3-chloropropane

106-93-4 1,2-dibromoethane

591-78-6 hexan-2-one

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## Safety Data Sheet

acc. to OSHA HCS

Printing date 08/24/2024

Revision date 08/24/2024

**Product Name: VOC Standard (1X1 mL)**

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**Chemicals known to cause developmental toxicity:**

67-56-1	methanol
67-66-3	trichloromethane
75-15-0	carbon disulphide
106-93-4	1,2-dibromoethane
108-10-1	4-methylpentan-2-one
591-78-6	hexan-2-one

**Carcinogenic categories**
**EPA (Environmental Protection Agency)**

67-64-1	acetone	I
67-66-3	trichloromethane	B2, L, NL
75-05-8	acetonitrile	CBD, D
75-25-2	bromoform	B2
75-27-4	bromodichloromethane	B2
78-93-3	butanone	I
106-93-4	1,2-dibromoethane	L
107-13-1	acrylonitrile	B1
108-10-1	4-methylpentan-2-one	I
124-48-1	dibromochloromethane	C
591-78-6	hexan-2-one	II

**TLV (Threshold Limit Value)**

67-64-1	acetone	A4
67-66-3	trichloromethane	A3
75-05-8	acetonitrile	A4
75-15-0	carbon disulphide	A4
75-25-2	bromoform	A3
106-93-4	1,2-dibromoethane	A3
107-13-1	acrylonitrile	A3

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

67-66-3	trichloromethane
96-12-8	1,2-dibromo-3-chloropropane
106-93-4	1,2-dibromoethane
107-13-1	acrylonitrile

**National regulations:**
**Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

**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.

US

(Contd. on page 16)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 08/24/2024

Revision date 08/24/2024

**Product Name: VOC Standard (1X1 mL)**

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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.

· **Contact:**

· **Date of preparation / last revision** 08/24/2024 / 4

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Acute Toxicity - Inhalation 3: Acute toxicity – Category 3

Sensitization - Skin 1: Skin sensitisation – Category 1

Germ Cell Mutagenicity 1B: Germ cell mutagenicity – Category 1B

Carcinogenicity 1B: Carcinogenicity – Category 1B

Toxic to Reproduction 1A: Reproductive toxicity – Category 1A

Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

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

US