

# Safety Data Sheet

acc. to OSHA HCS

Revision date: 05/01/2025

## 1 Identification

### · Product identifier

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

· **Part no. :** DWM-635-1

### · Restrictions

After June 16, 2025, this chemical substance (as defined in TSCA section 3(2)) may not be distributed in commerce or processed in greater than trace quantities for the following purposes: Incorporation into formulation, mixture or reaction products in petrochemical-derived manufacturing except in the manufacture of vinyl chloride; Industrial and commercial use as an industrial processing aid in the manufacture of petrochemicals-derived products except in the manufacture of vinyl chloride; Industrial and commercial use in the manufacture of other basic chemicals (including manufacturing of chlorinated compounds used in solvents, adhesives, asphalt, and paints and coatings), except for use in the elimination of nitrogen trichloride in the production of chlorine and caustic soda and the recovery of chlorine in tail gas from the production of chlorine; Industrial and commercial use in metal recovery; Industrial and commercial use as an additive; and beginning December 18, 2025, industrial and commercial specialty uses by the U.S. Department of Defense.

After June 16, 2025, this chemical/product is and can only be domestically manufactured, imported, processed, or distributed in commerce for the following purposes until the following prohibitions take effect: (1) Processing as an intermediate a) for the manufacture of HFC-134a until June 18, 2033, and b) for all other processing as a reactant/intermediate until December 18, 2026; (2) Industrial and commercial use as a solvent for open-top batch vapor degreasing until December 18, 2025; (3) Industrial and commercial use as a solvent for closed-loop batch vapor degreasing until December 18, 2025, except for industrial and commercial use in batch vapor degreasing for land-based DoD defense systems by Federal agencies and their contractors until December 18, 2029, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing necessary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use of TCE in closed-loop and open-top batch vapor degreasing for essential aerospace parts and components and narrow tubing used in medical devices until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2034; (4) Industrial and commercial use in processing aid (a) for lithium battery separator manufacturing until December 18, 2029, and (b) for lead-acid battery separator manufacturing until December 18, 2044, and (c) for specialty polymeric microporous sheet material manufacturing until December 18, 2039, and (d) in process solvent used in battery manufacture; in process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; in extraction solvent used in caprolactam manufacture; and in precipitant used in beta-cyclodextrin manufacture until December 18, 2026; (5) Industrial and commercial uses for vessels of the Armed Forces and their systems, and in the maintenance, fabrication, and sustainment for and of such vessels and systems until December 18, 2034; and (6) Industrial and commercial use for laboratory use (a) for essential laboratory activities until December 18, 2074 and (b) for asphalt testing and recovery using manual centrifuge processes until December 18, 2029 and for asphalt testing and recovery until December 18, 2034.

· **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](mailto:pdl-msds_author@agilent.com)

· **Emergency telephone number:** CHEMTREC®: 1-800-424-9300

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## 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 1A

H350 May cause cancer.

Toxic to Reproduction 2

H361 Suspected of damaging 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 organs 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).

### · Hazard pictograms



GHS02



GHS06



GHS07



GHS08

### · Signal word Danger

### · Hazard-determining components of labeling:

methanol

benzene

trichloromethane

carbon tetrachloride

### · Hazard statements

H225 Highly flammable liquid and vapor.

H331 Toxic if inhaled.

H317 May cause an allergic skin reaction.

H340 May cause genetic defects.

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H350 May cause cancer.  
H361 Suspected of damaging fertility or the unborn child.  
H370 Causes damage to the central nervous system and the visual organs.  
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P260 Do not breathe vapours.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P280 Wear protective gloves / protective clothing.  
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.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
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.  
P303+P361+P353 IF on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 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

· **HMIS-ratings (scale 0 - 4)**



Health = \*1  
Fire = 3  
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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## 3 Composition/information on ingredients

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

### · **Dangerous components:**

67-56-1	methanol	96.9664%
56-23-5	carbon tetrachloride	0.2528%
67-66-3	trichloromethane	0.2528%
71-43-2	benzene	0.2528%
71-55-6	1,1,1-trichloroethane	0.2528%
75-01-4	vinyl chloride	0.2528%
75-25-2	bromoform	0.2528%
75-27-4	bromodichloromethane	0.2528%
75-35-4	1,1-dichloroethylene	0.2528%
79-01-6	trichloroethylene	0.2528%
106-46-7	1,4-dichlorobenzene	0.2528%
107-06-2	1,2-dichloroethane	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.
- **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.

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- **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
56-23-5	carbon tetrachloride	1.2 ppm
67-66-3	trichloromethane	2 ppm
71-43-2	benzene	52 ppm
71-55-6	1,1,1-trichloroethane	230 ppm
75-01-4	vinyl chloride	250 ppm
75-25-2	bromoform	1.5 ppm
75-27-4	bromodichloromethane	1.3 mg/m <sup>3</sup>
75-35-4	1,1-dichloroethylene	45 ppm
79-01-6	trichloroethylene	130 ppm
106-46-7	1,4-dichlorobenzene	30 ppm
107-06-2	1,2-dichloroethane	50 ppm
124-48-1	dibromochloromethane	1.1 mg/m <sup>3</sup>

#### · PAC-2:

67-56-1	methanol	2,100 ppm
56-23-5	carbon tetrachloride	13 ppm
67-66-3	trichloromethane	64 ppm
71-43-2	benzene	800 ppm
71-55-6	1,1,1-trichloroethane	600 ppm
75-01-4	vinyl chloride	1,200 ppm
75-25-2	bromoform	6.8 ppm
75-27-4	bromodichloromethane	14 mg/m <sup>3</sup>
75-35-4	1,1-dichloroethylene	500 ppm
79-01-6	trichloroethylene	450 ppm
106-46-7	1,4-dichlorobenzene	170 ppm

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107-06-2	1,2-dichloroethane	200 ppm
124-48-1	dibromochloromethane	12 mg/m <sup>3</sup>
<b>· PAC-3:</b>		
67-56-1	methanol	7200* ppm
56-23-5	carbon tetrachloride	340 ppm
67-66-3	trichloromethane	3,200 ppm
71-43-2	benzene	4000* ppm
71-55-6	1,1,1-trichloroethane	4,200 ppm
75-01-4	vinyl chloride	4800* ppm
75-25-2	bromoform	41 ppm
75-27-4	bromodichloromethane	85 mg/m <sup>3</sup>
75-35-4	1,1-dichloroethylene	1,000 ppm
79-01-6	trichloroethylene	3,800 ppm
106-46-7	1,4-dichlorobenzene	1,000 ppm
107-06-2	1,2-dichloroethane	300 ppm
124-48-1	dibromochloromethane	73 mg/m <sup>3</sup>

## 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 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.

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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

**56-23-5 carbon tetrachloride**

PEL	Long-term value: 10 ppm Ceiling limit value: 25; 200* ppm *5-min peak in any 4 hrs
REL	Short-term value: 12.6* mg/m <sup>3</sup> , 2* ppm *60-min; See Pocket Guide App. A
TLV	Short-term value: 10 ppm Long-term value: 5 ppm Skin, A2

**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

**71-43-2 benzene**

PEL	Short-term value: 15* mg/m <sup>3</sup> , 5* ppm Long-term value: 3* mg/m <sup>3</sup> , 1* ppm *table Z-2 for exclusions in 29CFR1910.1028(d)
REL	Short-term value: 1 ppm Long-term value: 0.1 ppm See Pocket Guide App. A
TLV	Long-term value: 0.02 ppm Skin; BEI, A1

**71-55-6 1,1,1-trichloroethane**

PEL	Long-term value: 1900 mg/m <sup>3</sup> , 350 ppm
REL	Ceiling limit value: 1900* mg/m <sup>3</sup> , 350* ppm *15-min; See Pocket Guide App. C
TLV	Short-term value: 450 ppm Long-term value: 350 ppm BEI, A4

**75-01-4 vinyl chloride**

PEL	Short-term value: 5* ppm Long-term value: 1 ppm *Avg. not exceeding any 15 min; see 29CFR1910.1017
REL	See Pocket Guide App.A

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TLV	Long-term value: 1 ppm A1
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**75-25-2 bromoform**

PEL	Long-term value: 5 mg/m <sup>3</sup> , 0.5 ppm Skin
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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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**75-35-4 1,1-dichloroethylene**

REL	See Pocket Guide App.A
-----	------------------------

TLV	Long-term value: 5 ppm A4
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**79-01-6 trichloroethylene**

PEL	Long-term value: 100 ppm Ceiling limit value: 200; 300* ppm *5-min peak in any 2 hrs
-----	--

REL	See Pocket Guide Apps. A and C
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TLV	Short-term value: 25 ppm Long-term value: 10 ppm BEI, A2
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**106-46-7 1,4-dichlorobenzene**

PEL	Long-term value: 450 mg/m <sup>3</sup> , 75 ppm
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REL	See Pocket Guide App. A
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TLV	Long-term value: 10 ppm A3
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**107-06-2 1,2-dichloroethane**

PEL	Long-term value: 50 ppm Ceiling limit value: 100; 200* ppm *5-min peak in any 3 hrs
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REL	Short-term value: 8 mg/m <sup>3</sup> , 2 ppm Long-term value: 4 mg/m <sup>3</sup> , 1 ppm See Pocket Guide Apps. A and C
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TLV	Long-term value: 10 ppm A4
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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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**71-43-2 benzene**

BEI 25 µg/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: S-Phenylmercapturic acid (background)

500 µg/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: t,t-Muconic acid (background)

**71-55-6 1,1,1-trichloroethane**

BEI 20 ppm  
Medium: end-exhaled air  
Time: prior to shift at end of workweek  
Parameter: Methyl chloroform

700 µg/L  
Medium: urine  
Time: end of shift  
Parameter: Methyl chloroform

**79-01-6 trichloroethylene**

BEI 15 mg/L  
Medium: urine  
Time: end of shift at end of workweek  
Parameter: Trichloroacetic acid (nonspecific)

0.5 mg/L  
Medium: blood  
Time: end of shift at end of workweek  
Parameter: Trichloroethanol without hydrolysis (nonspecific)

-  
Medium: blood  
Time: end of shift at end of workweek  
Parameter: Trichloroethylene (semi-quantitative)

-  
Medium: end-exhaled air  
Time: end of shift at end of workweek  
Parameter: Trichloroethylene (semi-quantitative)

· **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.  
Do not inhale gases / fumes / aerosols.

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**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

**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 %

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<b>Upper:</b>	44 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	100 hPa (75 mm Hg)
· <b>Density at 20 °C (68 °F):</b>	0.82305 g/cm <sup>3</sup> (6.86835 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	98.2 %
<b>VOC content:</b>	97.98 %
	806.4 g/l / 6.73 lb/gal
<b>Solids content:</b>	0.3 %
· <b>Other information</b>	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)**

Oral	LD50	72,909 mg/kg (rat)
Dermal	LD50	11,578 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)

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**56-23-5 carbon tetrachloride**

Oral	LD50	2,350 mg/kg (rat)
Dermal	LD50	5,070 mg/kg (rat)

**67-66-3 trichloromethane**

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

**71-43-2 benzene**

Oral	LD50	3,340 mg/kg (rat)
Dermal	LD50	48 mg/kg (mouse)
		>8,260 mg/kg (rabbit)
Inhalative	LC50/4 h	9,980 mg/L (mouse)

**71-55-6 1,1,1-trichloroethane**

Oral	LD50	10,300 mg/kg (rat)
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**75-01-4 vinyl chloride**

Oral	LD50	500 mg/kg (rat)
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**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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**75-35-4 1,1-dichloroethylene**

Oral	LD50	200 mg/kg (rat)
Inhalative	LC50/4 h	6,350 mg/L (mouse)

**79-01-6 trichloroethylene**

Oral	LD50	2,402 mg/kg (mouse)
		4,290 mg/kg (rat)
Dermal	LD50	8,450 mg/kg (mouse)

**106-46-7 1,4-dichlorobenzene**

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.07 mg/L (rat)

**107-06-2 1,2-dichloroethane**

Oral	LD50	670 mg/kg (rat)
Dermal	LD50	2,800 mg/kg (rat)
		2,800 mg/kg (rabbit)

**· 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

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The product can cause inheritable damage.

**· 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
75-01-4	vinyl chloride	1
75-25-2	bromoform	3
75-27-4	bromodichloromethane	2B
75-35-4	1,1-dichloroethylene	2B
79-01-6	trichloroethylene	1
106-46-7	1,4-dichlorobenzene	2B
107-06-2	1,2-dichloroethane	2B
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
75-27-4	bromodichloromethane	R
79-01-6	trichloroethylene	K
106-46-7	1,4-dichlorobenzene	R
107-06-2	1,2-dichloroethane	R

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

71-43-2	benzene
75-01-4	vinyl chloride

## 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.

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

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## 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  
· **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.

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· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>Hazard identification number (Kemler code):</b>	336
· <b>EMS Number:</b>	F-E,S-D
· <b>Stowage Category</b>	B
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 60 L
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	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
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#### · 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
75-01-4	vinyl chloride
75-25-2	bromoform
75-27-4	bromodichloromethane
75-35-4	1,1-dichloroethylene
79-01-6	trichloroethylene
106-46-7	1,4-dichlorobenzene
107-06-2	1,2-dichloroethane

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

After June 16, 2025, this chemical/product is and can only be domestically manufactured, imported, processed, or distributed in commerce for the following purposes until the following prohibitions take effect: (1) Processing as an intermediate a) for the manufacture of HFC-134a until June 18, 2033, and b) for all other processing as a reactant/intermediate until December 18, 2026; (2) Industrial and commercial use as a solvent for open-top batch vapor degreasing until December 18, 2025; (3) Industrial and commercial use as a solvent for closed-loop batch vapor degreasing until December 18, 2025, except for industrial and commercial use in batch vapor degreasing for

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land-based DoD defense systems by Federal agencies and their contractors until December 18, 2029, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing necessary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use of TCE in closed-loop and open-top batch vapor degreasing for essential aerospace parts and components and narrow tubing used in medical devices until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2034; (4) Industrial and commercial use in processing aid (a) for lithium battery separator manufacturing until December 18, 2029, and (b) for lead-acid battery separator manufacturing until December 18, 2044, and (c) for specialty polymeric microporous sheet material manufacturing until December 18, 2039, and (d) in process solvent used in battery manufacture; in process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; in extraction solvent used in caprolactam manufacture; and in precipitant used in beta-cyclodextrin manufacture until December 18, 2026; (5) Industrial and commercial uses for vessels of the Armed Forces and their systems, and in the maintenance, fabrication, and sustainment for and of such vessels and systems until December 18, 2034; and (6) Industrial and commercial use for laboratory use (a) for essential laboratory activities until December 18, 2074 and (b) for asphalt testing and recovery using manual centrifuge processes until December 18, 2029 and for asphalt testing and recovery until December 18, 2034.

After June 16, 2025, this chemical substance (as defined in TSCA section 3(2)) may not be distributed in commerce or processed in greater than trace quantities for the following purposes: Incorporation into formulation, mixture or reaction products in petrochemical-derived manufacturing except in the manufacture of vinyl chloride; Industrial and commercial use as an industrial processing aid in the manufacture of petrochemicals-derived products except in the manufacture of vinyl chloride; Industrial and commercial use in the manufacture of other basic chemicals (including manufacturing of chlorinated compounds used in solvents, adhesives, asphalt, and paints and coatings), except for use in the elimination of nitrogen trichloride in the production of chlorine and caustic soda and the recovery of chlorine in tail gas from the production of chlorine; Industrial and commercial use in metal recovery; Industrial and commercial use as an additive; and beginning December 18, 2025, industrial and commercial specialty uses by the U.S. Department of Defense.

All components have the value ACTIVE.

**· Hazardous Air Pollutants**

67-56-1	methanol
56-23-5	carbon tetrachloride
67-66-3	trichloromethane
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
75-01-4	vinyl chloride
75-25-2	bromoform
75-35-4	1,1-dichloroethylene
79-01-6	trichloroethylene
106-46-7	1,4-dichlorobenzene
107-06-2	1,2-dichloroethane

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

56-23-5	carbon tetrachloride
67-66-3	trichloromethane
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
75-01-4	vinyl chloride

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75-25-2	bromoform
75-27-4	bromodichloromethane
75-35-4	1,1-dichloroethylene
79-01-6	trichloroethylene
106-46-7	1,4-dichlorobenzene
107-06-2	1,2-dichloroethane

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

None of the ingredients is listed.

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

71-43-2	benzene
79-01-6	trichloroethylene

**Chemicals known to cause developmental toxicity:**

67-56-1	methanol
67-66-3	trichloromethane
71-43-2	benzene
79-01-6	trichloroethylene

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

56-23-5	carbon tetrachloride	L
67-66-3	trichloromethane	B2, L, NL
71-43-2	benzene	A, K/L
71-55-6	1,1,1-trichloroethane	II
75-01-4	vinyl chloride	A, K/L
75-25-2	bromoform	B2
75-27-4	bromodichloromethane	B2
75-35-4	1,1-dichloroethylene	C, S (inh.), I (oral)
79-01-6	trichloroethylene	CaH
107-06-2	1,2-dichloroethane	B2
124-48-1	dibromochloromethane	C

**TLV (Threshold Limit Value)**

56-23-5	carbon tetrachloride	A2
67-66-3	trichloromethane	A3
71-43-2	benzene	A1
71-55-6	1,1,1-trichloroethane	A4
75-01-4	vinyl chloride	A1
75-25-2	bromoform	A3
75-35-4	1,1-dichloroethylene	A4
79-01-6	trichloroethylene	A2
106-46-7	1,4-dichlorobenzene	A3
107-06-2	1,2-dichloroethane	A4

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· NIOSH-Ca (National Institute for Occupational Safety and Health)	
56-23-5	carbon tetrachloride
67-66-3	trichloromethane
71-43-2	benzene
75-01-4	vinyl chloride
75-35-4	1,1-dichloroethylene
79-01-6	trichloroethylene
106-46-7	1,4-dichlorobenzene
107-06-2	1,2-dichloroethane

· **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.

## 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** 05/01/2025 / 3

· **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 &amp; 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 1A: Carcinogenicity – Category 1A

Toxic to Reproduction 2: Reproductive toxicity – Category 2

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.**