Safety Data Sheet
acc. to OSHA HCS

Revision date: 05/01/2025

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1 Identification

· **Product identifier**

· **Product Name: Aromatics / Alkenes Standard (1X1 mL)**

· **Part no. :** DWM-503-1

· **Restrictions**

After December 8, 2026 this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers for any use. After March 8, 2027, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of PCE equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant/intermediate; (2) Processing into formulation, mixture or reaction product; (3) Processing by repackaging; (4) Recycling; (5) Industrial and commercial use as solvent in open-top batch vapor degreasing; (6) Industrial and commercial use as solvent in closed-loop batch vapor degreasing; (7) Industrial and commercial use in maskant for chemical milling; (8) Industrial and commercial use as a processing aid in catalyst regeneration in petrochemical manufacturing; (9) Industrial and commercial use as a processing aid in sectors other than petrochemical manufacturing; (10) Industrial and commercial use as solvent for cold cleaning of tanker vessels; (11) Industrial and commercial use as energized electrical cleaner; (12) Industrial and commercial use in laboratory chemicals; (13) Industrial and commercial use in solvent-based adhesives and sealants; (14) Industrial and commercial use in dry cleaning in 3rd generation machines until December 20, 2027; (15) Industrial and commercial use in all dry cleaning and related spot cleaning until December 19, 2034; (16) Export; and (17) Disposal.
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

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· **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.

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
styrene
p-cymene
tetrachloroethylene

· **Hazard statements**
H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.
H317 May cause an allergic skin reaction.

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H340 May cause genetic defects.
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.

· **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.
P370+P378	In case of fire: Use CO2, 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:**	
87-61-6	1,2,3-trichlorobenzene
87-68-3	hexachlorobuta-1,3-diene
120-82-1	1,2,4-trichlorobenzene

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· **vPvB:**	
87-68-3	hexachlorobuta-1,3-diene

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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	96.4608%
71-43-2	benzene	0.1264%
79-01-6	trichloroethylene	0.1264%
87-61-6	1,2,3-trichlorobenzene	0.1264%
87-68-3	hexachlorobuta-1,3-diene	0.1264%
91-20-3	naphthalene	0.1264%
98-82-8	cumene	0.1264%
99-87-6	p-cymene	0.1264%
100-41-4	ethylbenzene	0.1264%
100-42-5	styrene	0.1264%
103-65-1	propylbenzene	0.1264%
106-46-7	1,4-dichlorobenzene	0.1264%
108-88-3	toluene	0.1264%
120-82-1	1,2,4-trichlorobenzene	0.1264%
127-18-4	tetrachloroethylene	0.1264%

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.

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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.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to 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
71-43-2	benzene	52 ppm
79-01-6	trichloroethylene	130 ppm
87-61-6	1,2,3-trichlorobenzene	15 mg/m³
87-68-3	hexachlorobuta-1,3-diene	1 ppm
91-20-3	naphthalene	15 ppm
95-49-8	2-chlorotoluene	75 ppm
95-50-1	1,2-dichlorobenzene	50 ppm
95-63-6	1,2,4-trimethylbenzene	140 ppm
98-06-6	tert-butylbenzene	1.7 ppm
98-82-8	cumene	50 ppm
99-87-6	p-cymene	120 mg/m³
100-41-4	ethylbenzene	33 ppm
100-42-5	styrene	20 ppm
103-65-1	propylbenzene	3.7 ppm
104-51-8	butylbenzene	3.6 ppm
106-43-4	4-chlorotoluene	1.2 ppm
106-46-7	1,4-dichlorobenzene	30 ppm

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108-38-3	m-xylene	130 ppm
108-67-8	mesitylene	140 ppm
108-86-1	bromobenzene	0.96 ppm
108-88-3	toluene	67 ppm
108-90-7	chlorobenzene	10 ppm
120-82-1	1,2,4-trichlorobenzene	0.45 ppm
127-18-4	tetrachloroethylene	35 ppm
135-98-8	2-Phenylbutane	1.2 ppm
541-73-1	1,3-dichlorobenzene	6 ppm

· **PAC-2:**

67-56-1	methanol	2,100 ppm
71-43-2	benzene	800 ppm
79-01-6	trichloroethylene	450 ppm
87-61-6	1,2,3-trichlorobenzene	60 mg/m³
87-68-3	hexachlorobuta-1,3-diene	3 ppm
91-20-3	naphthalene	83 ppm
95-49-8	2-chlorotoluene	310 ppm
95-50-1	1,2-dichlorobenzene	170 ppm
95-63-6	1,2,4-trimethylbenzene	360 ppm
98-06-6	tert-butylbenzene	18 ppm
98-82-8	cumene	300 ppm
99-87-6	p-cymene	1,300 mg/m³
100-41-4	ethylbenzene	1100* ppm
100-42-5	styrene	130 ppm
103-65-1	propylbenzene	41 ppm
104-51-8	butylbenzene	370 mg/m3
106-43-4	4-chlorotoluene	13 ppm
106-46-7	1,4-dichlorobenzene	170 ppm
108-38-3	m-xylene	920 ppm
108-67-8	mesitylene	360 ppm
108-86-1	bromobenzene	79 mg/m3
108-88-3	toluene	560 ppm
108-90-7	chlorobenzene	150 ppm
120-82-1	1,2,4-trichlorobenzene	5 ppm
127-18-4	tetrachloroethylene	230 ppm
135-98-8	2-Phenylbutane	64 mg/m3
541-73-1	1,3-dichlorobenzene	66 ppm

· **PAC-3:**

67-56-1	methanol	7200* ppm
71-43-2	benzene	4000* ppm
79-01-6	trichloroethylene	3,800 ppm

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87-61-6	1,2,3-trichlorobenzene	360 mg/m³
87-68-3	hexachlorobuta-1,3-diene	10 ppm
91-20-3	naphthalene	500 ppm
95-49-8	2-chlorotoluene	1,800 ppm
95-50-1	1,2-dichlorobenzene	1,000 ppm
95-63-6	1,2,4-trimethylbenzene	480 ppm
98-06-6	tert-butylbenzene	110 ppm
98-82-8	cumene	730 ppm
99-87-6	p-cymene	1,900 mg/m³
100-41-4	ethylbenzene	1800* ppm
100-42-5	styrene	1100* ppm
103-65-1	propylbenzene	240 ppm
104-51-8	butylbenzene	2,200 mg/m3
106-43-4	4-chlorotoluene	80 ppm
106-46-7	1,4-dichlorobenzene	1,000 ppm
108-38-3	m-xylene	2500* ppm
108-67-8	mesitylene	480 ppm
108-86-1	bromobenzene	470 mg/m3
108-88-3	toluene	3700* ppm
108-90-7	chlorobenzene	400 ppm
120-82-1	1,2,4-trichlorobenzene	20 ppm
127-18-4	tetrachloroethylene	1,200 ppm
135-98-8	2-Phenylbutane	380 mg/m3
541-73-1	1,3-dichlorobenzene	400 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.

· **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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

67-56-1 methanol	
PEL	Long-term value: 260 mg/m³, 200 ppm
REL	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEIc
71-43-2 benzene	
PEL	Short-term value: 15* mg/m³, 5* ppm Long-term value: 3* mg/m³, 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
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
TLV	Short-term value: 25 ppm Long-term value: 10 ppm BEI, A2
87-68-3 hexachlorobuta-1,3-diene	
REL	Long-term value: 0.24 mg/m³, 0.02 ppm Skin; See Pocket Guide App. A
TLV	Long-term value: 0.02 ppm Skin, A3
91-20-3 naphthalene	
PEL	Long-term value: 50 mg/m³, 10 ppm
REL	Short-term value: 75 mg/m³, 15 ppm Long-term value: 50 mg/m³, 10 ppm

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TLV	Long-term value: 10 ppm Skin; BEI, A3
98-82-8 cumene	
PEL	Long-term value: 245 mg/m³, 50 ppm Skin
REL	Long-term value: 245 mg/m³, 50 ppm Skin
TLV	Long-term value: 5 ppm A3
100-41-4 ethylbenzene	
PEL	Long-term value: 435 mg/m³, 100 ppm
REL	Short-term value: 545 mg/m³, 125 ppm Long-term value: 435 mg/m³, 100 ppm
TLV	Long-term value: 20 ppm OTO, BEI, A3
100-42-5 styrene	
PEL	Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m³, 100 ppm Long-term value: 215 mg/m³, 50 ppm
TLV	Short-term value: 20 ppm Long-term value: 10 ppm BEI, OTO, A3
106-46-7 1,4-dichlorobenzene	
PEL	Long-term value: 450 mg/m³, 75 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 10 ppm A3
108-88-3 toluene	
PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm
TLV	Long-term value: 20 ppm BEI, OTO, A4
120-82-1 1,2,4-trichlorobenzene	
REL	Ceiling limit value: 40 mg/m³, 5 ppm
TLV	Ceiling limit value: 5 ppm
127-18-4 tetrachloroethylene	
PEL	Long-term value: 100 ppm Ceiling limit value: 200; 300* ppm *5-min peak in any 3 hrs

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REL	Minimize workplace exp. concs.;Pocket Guide App. A
TLV	Short-term value: 100 ppm Long-term value: 25 ppm BEI, A3

· **Ingredients with biological limit values:**

67-56-1 methanol

BEI	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

71-43-2 benzene

BEI	25 µg/g creatinine Medium: urine Time: end of shift Parameter Parameter: S-Phenylmercapturic acid (background 500 µg/g creatinine Medium: urine Time: end of shift Parameter: t,t-Muconic acid (background)

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)

91-20-3 naphthalene

BEI	- Medium: - Time: end of shift Parameter: 1-Naphthol with hydrolysis + 2-Naphthol with hydrolysis (Nq,Ns)

100-41-4 ethylbenzene

BEI	0.15 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

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100-42-5 styrene	
BEI	400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific) 40 µg/L Medium: urine Time: end of shift Parameter: Styrene
108-88-3 toluene	
BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene 0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
127-18-4 tetrachloroethylene	
BEI	3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene 0.5 mg/L Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

· **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.
· **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.

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· **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 °C (147.2 °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):**	0.81052 g/cm³ (6.76379 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.

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· **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:	98.7 %
VOC content:	98.61 % 799.3 g/l / 6.67 lb/gal
Solids content:	0.4 %
· **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.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
ATE (Acute Toxicity Estimate)		
Oral	LD50	64,873 mg/kg (rat)
Dermal	LD50	25,659 mg/kg
Inhalative	LC50/4 h	3.11 mg/L

67-56-1 methanol		
Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 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)

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Product Name: Aromatics / Alkenes Standard (1X1 mL)

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79-01-6 trichloroethylene		
Oral	LD50	2,402 mg/kg (mouse)
		4,290 mg/kg (rat)
Dermal	LD50	8,450 mg/kg (mouse)
87-61-6 1,2,3-trichlorobenzene		
Oral	LD50	1,830 mg/kg (rat)
87-68-3 hexachlorobuta-1,3-diene		
Oral	LD50	82 mg/kg (rat)
Dermal	LD50	100 mg/kg (rabbit)
Inhalative	LC50/4 h	370 mg/L (mouse)
91-20-3 naphthalene		
Oral	LD50	490 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)
		20,000 mg/kg (rabbit)
98-82-8 cumene		
Oral	LD50	1,400 mg/kg (rat)
Dermal	LD50	>3,160 mg/kg (rabbit)
Inhalative	LC50/4 h	24.7 mg/L (mouse)
99-87-6 p-cymene		
Oral	LD50	4,750 mg/kg (rat)
Inhalative	LC50/4 h	3 mg/L (ATE)
100-41-4 ethylbenzene		
Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	15,354 mg/kg (rabbit)
Inhalative	LC50/4 h	17.2 mg/L (rat)
100-42-5 styrene		
Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	11.8 mg/L (rat)
103-65-1 propylbenzene		
Oral	LD50	6,040 mg/kg (rat)
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)
108-88-3 toluene		
Oral	LD50	5,580 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	5,320 mg/L (mouse)
		28.1 mg/L (rat)

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Product Name: Aromatics / Alkenes Standard (1X1 mL)

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120-82-1 1,2,4-trichlorobenzene		
Oral	LD50	756 mg/kg (rat)
Dermal	LD50	6,139 mg/kg (rat)
127-18-4 tetrachloroethylene		
Oral	LD50	2,629 mg/kg (rat)
Inhalative	LC50/4 h	4,000 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)**		
71-43-2	benzene	1
79-01-6	trichloroethylene	1
87-68-3	hexachlorobuta-1,3-diene	3
91-20-3	naphthalene	2B
95-47-6	o-xylene	3
95-50-1	1,2-dichlorobenzene	3
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
108-38-3	m-xylene	3
108-88-3	toluene	3
127-18-4	tetrachloroethylene	2A
541-73-1	1,3-dichlorobenzene	3

· **NTP (National Toxicology Program)**		
71-43-2	benzene	K
79-01-6	trichloroethylene	K
91-20-3	naphthalene	R
98-82-8	cumene	R
100-42-5	styrene	R
106-46-7	1,4-dichlorobenzene	R
127-18-4	tetrachloroethylene	R

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· **OSHA-Ca (Occupational Safety & Health Administration)**	
71-43-2	benzene

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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 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:**	
87-61-6	1,2,3-trichlorobenzene
87-68-3	hexachlorobuta-1,3-diene
120-82-1	1,2,4-trichlorobenzene

· **vPvB:**	
87-68-3	hexachlorobuta-1,3-diene

· **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**	-
· **UN-Number**	
· **DOT, IMDG, IATA**	UN1230
· **UN proper shipping name**	
· **DOT**	Methanol solution
· **IMDG, IATA**	METHANOL solution

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· **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.
· **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

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

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15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

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

67-56-1	methanol
71-43-2	benzene
79-01-6	trichloroethylene
87-61-6	1,2,3-trichlorobenzene
87-68-3	hexachlorobuta-1,3-diene
91-20-3	naphthalene
95-47-6	o-xylene
95-50-1	1,2-dichlorobenzene
95-63-6	1,2,4-trimethylbenzene
98-82-8	cumene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene
108-38-3	m-xylene
108-88-3	toluene
108-90-7	chlorobenzene
120-82-1	1,2,4-trichlorobenzene
127-18-4	tetrachloroethylene
541-73-1	1,3-dichlorobenzene

· **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 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

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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 December 8, 2026 this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers for any use. After March 8, 2027, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of PCE equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant/intermediate; (2) Processing into formulation, mixture or reaction product; (3) Processing by repackaging; (4) Recycling; (5) Industrial and commercial use as solvent in open-top batch vapor degreasing; (6) Industrial and commercial use as solvent in closed-loop batch vapor degreasing; (7) Industrial and commercial use in maskant for chemical milling; (8) Industrial and commercial use as a processing aid in catalyst regeneration in petrochemical manufacturing; (9) Industrial and commercial use as a processing aid in sectors other than petrochemical manufacturing; (10) Industrial and commercial use as solvent for cold cleaning of tanker vessels; (11) Industrial and commercial use as energized electrical cleaner; (12) Industrial and commercial use in laboratory chemicals; (13) Industrial and commercial use in solvent-based adhesives and sealants; (14) Industrial and commercial use in dry cleaning in 3rd generation machines until December 20, 2027; (15) Industrial and commercial use in all dry cleaning and related spot cleaning until December 19, 2034; (16) Export; and (17) Disposal.

All components have the value ACTIVE.

· **Hazardous Air Pollutants**	
67-56-1	methanol
71-43-2	benzene
79-01-6	trichloroethylene
87-68-3	hexachlorobuta-1,3-diene
91-20-3	naphthalene
95-47-6	o-xylene
98-82-8	cumene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene
108-38-3	m-xylene
108-88-3	toluene
108-90-7	chlorobenzene
120-82-1	1,2,4-trichlorobenzene
127-18-4	tetrachloroethylene

· **Proposition 65**

· **Chemicals known to cause cancer:**	
71-43-2	benzene
79-01-6	trichloroethylene
87-68-3	hexachlorobuta-1,3-diene
91-20-3	naphthalene

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98-82-8	cumene
100-41-4	ethylbenzene
100-42-5	styrene
106-46-7	1,4-dichlorobenzene
127-18-4	tetrachloroethylene

· **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
71-43-2	benzene
79-01-6	trichloroethylene
108-88-3	toluene

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

71-43-2	benzene	A, K/L
79-01-6	trichloroethylene	CaH
87-68-3	hexachlorobuta-1,3-diene	C
91-20-3	naphthalene	C, CBD
95-47-6	o-xylene	I
95-50-1	1,2-dichlorobenzene	D
95-63-6	1,2,4-trimethylbenzene	II
98-82-8	cumene	D, CBD
100-41-4	ethylbenzene	D
106-42-3	p-xylene	I
108-38-3	m-xylene	I
108-67-8	mesitylene	II
108-86-1	bromobenzene	II
108-88-3	toluene	II
108-90-7	chlorobenzene	D
120-82-1	1,2,4-trichlorobenzene	D
127-18-4	tetrachloroethylene	L
541-73-1	1,3-dichlorobenzene	D

· **TLV (Threshold Limit Value)**

71-43-2	benzene	A1
79-01-6	trichloroethylene	A2
87-68-3	hexachlorobuta-1,3-diene	A3
91-20-3	naphthalene	A4
95-47-6	o-xylene	A4

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Product Name: Aromatics / Alkenes Standard (1X1 mL)

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95-50-1	1,2-dichlorobenzene	A4
100-41-4	ethylbenzene	A3
100-42-5	styrene	A4
106-42-3	p-xylene	A4
106-46-7	1,4-dichlorobenzene	A3
108-38-3	m-xylene	A4
108-88-3	toluene	A4
108-90-7	chlorobenzene	A3
127-18-4	tetrachloroethylene	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
71-43-2	benzene
79-01-6	trichloroethylene
87-68-3	hexachlorobuta-1,3-diene
106-46-7	1,4-dichlorobenzene
127-18-4	tetrachloroethylene

· **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.

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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 preparation / last revision** 05/01/2025 / 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

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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

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