

## 1 Identification

- **Product identifier**
- **Product Name:** EPA Method 524.2 Volatile Calibration Standard
- **Part Name:** 5242-VCX-200
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Spex CertiPrep, LLC.  
203 Norcross Ave, Metuchen,  
NJ 08840 USA  
732-549-7144  
USMet-CRMSales@antylia.com
- **Information department:** product safety department
- **Emergency telephone number:**  
Emergency Phone Number (24 hours)  
CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

## 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

Specific Target Organ Toxicity - Single Exposure 1 H370 Causes damage to the central nervous system and the visual organs.

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



GHS02



GHS06



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
methanol
- **Hazard statements**  
H225 Highly flammable liquid and vapor.  
H331 Toxic if inhaled.  
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.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see on this label).  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.

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P405 Store locked up.

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

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



- HMIS-ratings (scale 0 - 4)



- 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	98.92%
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· Chemical identification of the substance/preparation

56-23-5	carbon tetrachloride	0.02%
67-66-3	chloroform	0.02%
71-43-2	benzene	0.02%
71-55-6	1,1,1-trichloroethane	0.02%
74-95-3	dibromomethane	0.02%
74-97-5	bromochloromethane	0.02%
75-09-2	dichloromethane	0.02%
75-25-2	bromoform	0.02%
75-27-4	bromodichloromethane	0.02%
75-34-3	1,1-dichloroethane	0.02%
75-35-4	1,1-dichloroethylene	0.02%
78-87-5	propylene dichloride	0.02%
79-00-5	1,1,2-trichloroethane	0.02%
79-01-6	trichloroethylene	0.02%
79-34-5	1,1,2,2-tetrachloroethane	0.02%
87-61-6	1,2,3-trichlorobenzene	0.02%
87-68-3	hexachlorobuta-1,3-diene	0.02%
91-20-3	naphthalene	0.02%
95-47-6	o-xylene	0.02%
95-49-8	2-chlorotoluene	0.02%
95-50-1	1,2-dichlorobenzene	0.02%
95-63-6	1,2,4-trimethylbenzene	0.02%
96-12-8	1,2-dibromo-3-chloropropane	0.02%
96-18-4	1,2,3-trichloropropane	0.02%
98-06-6	tert-butylbenzene	0.02%
98-82-8	isopropylbenzene	0.02%
99-87-6	p-cymene	0.02%
100-41-4	ethylbenzene	0.02%
100-42-5	styrene	0.02%
103-65-1	propylbenzene	0.02%
104-51-8	butylbenzene	0.02%
106-42-3	p-xylene	0.02%
106-43-4	4-chlorotoluene	0.02%

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106-46-7	1,4-dichlorobenzene	0.02%
106-93-4	1,2-dibromoethane	0.02%
107-06-2	1,2-dichloroethane	0.02%
108-38-3	m-xylene	0.02%
108-67-8	mesitylene	0.02%
108-86-1	bromobenzene	0.02%
108-88-3	toluene	0.02%
108-90-7	chlorobenzene	0.02%
120-82-1	1,2,4-trichlorobenzene	0.02%
124-48-1	dibromochloromethane	0.02%
127-18-4	tetrachloroethylene	0.02%
135-98-8	sec-butylbenzene	0.02%
142-28-9	1,3-dichloropropane	0.02%
156-59-2	cis-dichloroethylene	0.02%
156-60-5	trans-dichloroethylene	0.02%
541-73-1	1,3-dichlorobenzene	0.02%
563-58-6	1,1-dichloropropene	0.02%
594-20-7	2,2-dichloropropane	0.02%
630-20-6	1,1,1,2-Tetrachloroethane	0.02%
10061-01-5	(Z)-1,3-dichloropropene	0.02%
10061-02-6	trans-1,3-Dichloropropene	0.02%

#### 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:** Do not give anything to eat or drink - Do not induce vomiting

· **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.

· **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:**

Dilute with plenty of water.  
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 item 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.

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· Protective Action Criteria for Chemicals

· PAC-1:		
67-56-1	methanol	530 ppm
56-23-5	carbon tetrachloride	1.2 ppm
67-66-3	chloroform	2 ppm
71-43-2	benzene	52 ppm
71-55-6	1,1,1-trichloroethane	230 ppm
74-95-3	dibromomethane	3 ppm
74-97-5	bromochloromethane	600 ppm
75-09-2	dichloromethane	200 ppm
75-25-2	bromoform	1.5 ppm
75-27-4	bromodichloromethane	1.3 mg/m <sup>3</sup>
75-34-3	1,1-dichloroethane	300 ppm
75-35-4	1,1-dichloroethylene	45 ppm
78-87-5	propylene dichloride	30 ppm
79-00-5	1,1,2-trichloroethane	30 ppm
79-01-6	trichloroethylene	130 ppm
79-34-5	1,1,2,2-tetrachloroethane	3 ppm
87-61-6	1,2,3-trichlorobenzene	15 mg/m <sup>3</sup>
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
96-12-8	1,2-dibromo-3-chloropropane	0.003 ppm
96-18-4	1,2,3-trichloropropane	0.015 ppm
98-06-6	tert-butylbenzene	1.7 ppm
98-82-8	isopropylbenzene	50 ppm
99-87-6	p-cymene	120 mg/m <sup>3</sup>
100-41-4	ethylbenzene	33 ppm
100-42-5	styrene	20 ppm
103-65-1	propylbenzene	3.7 ppm
· PAC-2:		
67-56-1	methanol	2,100 ppm
56-23-5	carbon tetrachloride	13 ppm
67-66-3	chloroform	64 ppm
71-43-2	benzene	800 ppm
71-55-6	1,1,1-trichloroethane	600 ppm
74-95-3	dibromomethane	33 ppm
74-97-5	bromochloromethane	830 ppm
75-09-2	dichloromethane	560 ppm
75-25-2	bromoform	6.8 ppm
75-27-4	bromodichloromethane	14 mg/m <sup>3</sup>
75-34-3	1,1-dichloroethane	670 ppm
75-35-4	1,1-dichloroethylene	500 ppm
78-87-5	propylene dichloride	220 ppm
79-00-5	1,1,2-trichloroethane	180 ppm
79-01-6	trichloroethylene	450 ppm
79-34-5	1,1,2,2-tetrachloroethane	120 ppm
87-61-6	1,2,3-trichlorobenzene	60 mg/m <sup>3</sup>
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
96-12-8	1,2-dibromo-3-chloropropane	2.2 ppm
96-18-4	1,2,3-trichloropropane	170 ppm

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98-06-6	tert-butylbenzene	18 ppm
98-82-8	isopropylbenzene	300 ppm
99-87-6	p-cymene	1,300 mg/m <sup>3</sup>
100-41-4	ethylbenzene	1100* ppm
100-42-5	styrene	130 ppm
103-65-1	propylbenzene	41 ppm
<b>- PAC-3:</b>		
67-56-1	methanol	7200* ppm
56-23-5	carbon tetrachloride	340 ppm
67-66-3	chloroform	3,200 ppm
71-43-2	benzene	4000* ppm
71-55-6	1,1,1-trichloroethane	4,200 ppm
74-95-3	dibromomethane	200 ppm
74-97-5	bromochloromethane	5,000 ppm
75-09-2	dichloromethane	6,900 ppm
75-25-2	bromoform	41 ppm
75-27-4	bromodichloromethane	85 mg/m <sup>3</sup>
75-34-3	1,1-dichloroethane	4,000 ppm
75-35-4	1,1-dichloroethylene	1,000 ppm
78-87-5	propylene dichloride	2,000 ppm
79-00-5	1,1,2-trichloroethane	500 ppm
79-01-6	trichloroethylene	3,800 ppm
79-34-5	1,1,2,2-tetrachloroethane	150 ppm
87-61-6	1,2,3-trichlorobenzene	360 mg/m <sup>3</sup>
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
96-12-8	1,2-dibromo-3-chloropropane	4.3 ppm
96-18-4	1,2,3-trichloropropane	1,000 ppm
98-06-6	tert-butylbenzene	110 ppm
98-82-8	isopropylbenzene	730 ppm
99-87-6	p-cymene	1,900 mg/m <sup>3</sup>
100-41-4	ethylbenzene	1800* ppm
100-42-5	styrene	1100* ppm
103-65-1	propylbenzene	240 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.
- **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 item 7.

· **Control parameters**

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

**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; BEI

· **Ingredients with biological limit values:**

**67-56-1 methanol**

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

· **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.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: According to product specification

· **Odor:** Characteristic

· **Odour Threshold:** Not applicable.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range: Undetermined.

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· <b>Boiling point/Boiling range:</b>	64.7 °C (148.5 °F)
· <b>Flash point:</b>	< 23 °C (< 73.4 °F)
· <b>Flammability (solid, gaseous):</b>	Highly flammable.
· <b>Ignition temperature:</b>	455 °C (851 °F)
· <b>Decomposition temperature:</b>	Not applicable.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	5.5 Vol %
· <b>Upper:</b>	44 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	128 hPa (96 mm Hg)
· <b>Density</b>	Not applicable.
· <b>Relative density</b>	Not applicable.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not applicable.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	99.5 %
· <b>VOC content:</b>	99.42 %
· <b>Solids content:</b>	0.1 %
· <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:**

**67-56-1 methanol**

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

- **Primary irritant effect:**
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Toxic
- **Carcinogenic categories**

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

56-23-5	carbon tetrachloride	2B
67-66-3	chloroform	2B
71-43-2	benzene	1
71-55-6	1,1,1-trichloroethane	2A
75-09-2	dichloromethane	2A

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75-25-2	bromoform	3
75-27-4	bromodichloromethane	2B
75-35-4	1,1-dichloroethylene	2B
78-87-5	propylene dichloride	1
79-00-5	1,1,2-trichloroethane	3
79-01-6	trichloroethylene	1
79-34-5	1,1,2,2-tetrachloroethane	2B
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
96-12-8	1,2-dibromo-3-chloropropane	2B
96-18-4	1,2,3-trichloropropane	2A
98-82-8	isopropylbenzene	2B
100-41-4	ethylbenzene	2B
100-42-5	styrene	2A
106-42-3	p-xylene	3
106-46-7	1,4-dichlorobenzene	2B
106-93-4	1,2-dibromoethane	2A
107-06-2	1,2-dichloroethane	2B
108-38-3	m-xylene	3
108-88-3	toluene	3
124-48-1	dibromochloromethane	3
127-18-4	tetrachloroethylene	2A
541-73-1	1,3-dichlorobenzene	3

· **NTP (National Toxicology Program)**

56-23-5	carbon tetrachloride	R
67-66-3	chloroform	R
71-43-2	benzene	K
75-09-2	dichloromethane	R
75-27-4	bromodichloromethane	R
79-01-6	trichloroethylene	K
91-20-3	naphthalene	R
96-12-8	1,2-dibromo-3-chloropropane	R
96-18-4	1,2,3-trichloropropane	R
98-82-8	isopropylbenzene	R
100-42-5	styrene	R
106-46-7	1,4-dichlorobenzene	R
106-93-4	1,2-dibromoethane	R
107-06-2	1,2-dichloroethane	R
127-18-4	tetrachloroethylene	R

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

71-43-2	benzene	
75-09-2	dichloromethane	
96-12-8	1,2-dibromo-3-chloropropane	

**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.

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- 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.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	UN1230
· UN proper shipping name · DOT · ADR · IMDG, IATA	Methanol 1230 METHANOL METHANOL
· Transport hazard class(es) · DOT	
	
· Class · Label	3 Flammable liquids 3, 6.1
· ADR	
	
· Class · Label	3 Flammable liquids 3+6.1
· IMDG	
	
· Class · Label	3 Flammable liquids 3/6.1
· IATA	
	
· Class · Label	3 Flammable liquids 3 (6.1)
· Packing group · DOT, ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code	Warning: Flammable liquids 336 F-E,S-D B SW2 Clear of living quarters.

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· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.	
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1230 METHANOL, 3 (6.1), II

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- Sara

· Section 313 (Specific toxic chemical listings):	
67-56-1	methanol
56-23-5	carbon tetrachloride
67-66-3	chloroform
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
74-95-3	dibromomethane
75-09-2	dichloromethane
75-25-2	bromoform
75-27-4	bromodichloromethane
75-34-3	1,1-dichloroethane
75-35-4	1,1-dichloroethylene
78-87-5	propylene dichloride
79-00-5	1,1,2-trichloroethane
79-01-6	trichloroethylene
79-34-5	1,1,2,2-tetrachloroethane
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
96-12-8	1,2-dibromo-3-chloropropane
96-18-4	1,2,3-trichloropropane
98-82-8	isopropylbenzene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene
106-93-4	1,2-dibromoethane
107-06-2	1,2-dichloroethane
108-38-3	m-xylene

· TSCA (Toxic Substances Control Act):		
67-56-1	methanol	ACTIVE
56-23-5	carbon tetrachloride	ACTIVE
67-66-3	chloroform	ACTIVE
71-43-2	benzene	ACTIVE
71-55-6	1,1,1-trichloroethane	ACTIVE
74-95-3	dibromomethane	ACTIVE
74-97-5	bromochloromethane	ACTIVE
75-09-2	dichloromethane	ACTIVE

(Contd. on page 11)

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75-25-2	bromoform	ACTIVE
75-27-4	bromodichloromethane	ACTIVE
75-34-3	1,1-dichloroethane	ACTIVE
75-35-4	1,1-dichloroethylene	ACTIVE
78-87-5	propylene dichloride	ACTIVE
79-00-5	1,1,2-trichloroethane	ACTIVE
79-01-6	trichloroethylene	ACTIVE
79-34-5	1,1,2,2-tetrachloroethane	ACTIVE
87-61-6	1,2,3-trichlorobenzene	ACTIVE
87-68-3	hexachlorobuta-1,3-diene	ACTIVE
91-20-3	naphthalene	ACTIVE
95-47-6	o-xylene	ACTIVE
95-49-8	2-chlorotoluene	ACTIVE
95-50-1	1,2-dichlorobenzene	ACTIVE
95-63-6	1,2,4-trimethylbenzene	ACTIVE
96-12-8	1,2-dibromo-3-chloropropane	ACTIVE
96-18-4	1,2,3-trichloropropane	ACTIVE
98-06-6	tert-butylbenzene	ACTIVE
98-82-8	isopropylbenzene	ACTIVE
99-87-6	p-cymene	ACTIVE
100-41-4	ethylbenzene	ACTIVE
100-42-5	styrene	ACTIVE

**· Hazardous Air Pollutants**

67-56-1	methanol
56-23-5	carbon tetrachloride
67-66-3	chloroform
71-43-2	benzene
71-55-6	1,1,1-trichloroethane
75-09-2	dichloromethane
75-25-2	bromoform
75-34-3	1,1-dichloroethane
75-35-4	1,1-dichloroethylene
78-87-5	propylene dichloride
79-00-5	1,1,2-trichloroethane
79-01-6	trichloroethylene
79-34-5	1,1,2,2-tetrachloroethane
87-68-3	hexachlorobuta-1,3-diene
91-20-3	naphthalene
95-47-6	o-xylene
96-12-8	1,2-dibromo-3-chloropropane
98-82-8	isopropylbenzene
100-41-4	ethylbenzene
100-42-5	styrene
106-42-3	p-xylene
106-46-7	1,4-dichlorobenzene
106-93-4	1,2-dibromoethane
107-06-2	1,2-dichloroethane
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:**

56-23-5	carbon tetrachloride
67-66-3	chloroform

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**Product Name: EPA Method 524.2 Volatile Calibration Standard**

(Contd. of page 11)

71-43-2	benzene
75-09-2	dichloromethane
75-25-2	bromoform
75-27-4	bromodichloromethane
75-34-3	1,1-dichloroethane
75-35-4	1,1-dichloroethylene
78-87-5	propylene dichloride
79-00-5	1,1,2-trichloroethane
79-01-6	trichloroethylene
79-34-5	1,1,2,2-tetrachloroethane
87-68-3	hexachlorobuta-1,3-diene
91-20-3	naphthalene
96-12-8	1,2-dibromo-3-chloropropane
96-18-4	1,2,3-trichloropropane
98-82-8	isopropylbenzene
100-41-4	ethylbenzene
100-42-5	styrene
106-46-7	1,4-dichlorobenzene
106-93-4	1,2-dibromoethane
107-06-2	1,2-dichloroethane
127-18-4	tetrachloroethylene
630-20-6	1,1,1,2-Tetrachloroethane

**· 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
96-12-8	1,2-dibromo-3-chloropropane
106-93-4	1,2-dibromoethane

**· Chemicals known to cause developmental toxicity:**

67-56-1	methanol
67-66-3	chloroform
71-43-2	benzene
79-01-6	trichloroethylene
106-93-4	1,2-dibromoethane
108-88-3	toluene

**· Carcinogenic categories**

**· EPA (Environmental Protection Agency)**

56-23-5	carbon tetrachloride	L
67-66-3	chloroform	B2, L, NL
71-43-2	benzene	A, K/L
71-55-6	1,1,1-trichloroethane	II
74-97-5	bromochloromethane	D
75-09-2	dichloromethane	L
75-25-2	bromoform	B2
75-27-4	bromodichloromethane	B2
75-34-3	1,1-dichloroethane	C
75-35-4	1,1-dichloroethylene	C, S (inh.), I (oral)
79-00-5	1,1,2-trichloroethane	C
79-01-6	trichloroethylene	CaH
79-34-5	1,1,2,2-tetrachloroethane	L
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

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(Contd. of page 12)

96-18-4	1,2,3-trichloropropane	L
98-82-8	isopropylbenzene	D, CBD
100-41-4	ethylbenzene	D
106-42-3	p-xylene	I
106-93-4	1,2-dibromoethane	L
107-06-2	1,2-dichloroethane	B2
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

**· TLV (Threshold Limit Value)**

56-23-5	carbon tetrachloride	A2
67-66-3	chloroform	A3
71-43-2	benzene	A1
71-55-6	1,1,1-trichloroethane	A4
75-09-2	dichloromethane	A3
75-25-2	bromoform	A3
75-34-3	1,1-dichloroethane	A4
75-35-4	1,1-dichloroethylene	A4
78-87-5	propylene dichloride	A4
79-00-5	1,1,2-trichloroethane	A3
79-01-6	trichloroethylene	A2
79-34-5	1,1,2,2-tetrachloroethane	A3
87-68-3	hexachlorobuta-1,3-diene	A3
91-20-3	naphthalene	A4
95-47-6	o-xylene	A4
95-50-1	1,2-dichlorobenzene	A4
96-18-4	1,2,3-trichloropropane	A3
100-41-4	ethylbenzene	A3
100-42-5	styrene	A4
106-42-3	p-xylene	A4
106-46-7	1,4-dichlorobenzene	A3
106-93-4	1,2-dibromoethane	A3
107-06-2	1,2-dichloroethane	A4
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)**

56-23-5	carbon tetrachloride
67-66-3	chloroform
71-43-2	benzene
75-09-2	dichloromethane
75-35-4	1,1-dichloroethylene
78-87-5	propylene dichloride
79-00-5	1,1,2-trichloroethane
79-01-6	trichloroethylene
79-34-5	1,1,2,2-tetrachloroethane
87-68-3	hexachlorobuta-1,3-diene
96-12-8	1,2-dibromo-3-chloropropane
96-18-4	1,2,3-trichloropropane
106-46-7	1,4-dichlorobenzene
106-93-4	1,2-dibromoethane
107-06-2	1,2-dichloroethane
127-18-4	tetrachloroethylene

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Product Name: EPA Method 524.2 Volatile Calibration Standard

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



GHS02      GHS06      GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
methanol
- **Hazard statements**  
H225 Highly flammable liquid and vapor.  
H331 Toxic if inhaled.  
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.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see on this label).  
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.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** product safety department
- **Contact:**  
Spex CertiPrep, LLC.  
1-732-549-7144
- **Date of preparation / last revision** 02/22/2023
- **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  
Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1