Safety Data Sheet
acc. to OSHA HCS

Printing date 11/21/2022 *Reviewed on 11/21/2022*

1 Identification

· **Product identifier**

· **Product Name: VOC Mix**

· **Part Name:** 5242-VCX
· **Restrictions**
This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.
· **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

Germ Cell Mutagenicity 1B	H340 May cause genetic defects.
Carcinogenicity 1A	H350 May cause cancer.
Toxic to Reproduction 1A	H360 May damage fertility or the unborn child.
Specific Target Organ Toxicity - Single Exposure 1	H370 Causes damage to the central nervous system and the visual organs.
Specific Target Organ Toxicity - Repeated Exposure 2	H373 May cause damage to 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
1,2-dibromo-3-chloropropane
carbon tetrachloride

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(Z)-1,3-dichloropropene
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.
H317 May cause an allergic skin reaction.
H340 May cause genetic defects.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H370 Causes damage to the central nervous system and the visual organs.
H373 May cause damage to organs through prolonged or repeated exposure.
· **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.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
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

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

3 Composition/information on ingredients

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

· **Dangerous components:**		
67-56-1	methanol	89.2%
56-23-5	carbon tetrachloride	0.2%
67-66-3	chloroform	0.2%
71-43-2	benzene	0.2%
71-55-6	1,1,1-trichloroethane	0.2%
75-09-2	dichloromethane	0.2%
75-25-2	bromoform	0.2%
75-27-4	bromodichloromethane	0.2%
75-35-4	1,1-dichloroethylene	0.2%
78-87-5	propylene dichloride	0.2%
79-00-5	1,1,2-trichloroethane	0.2%

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79-01-6	trichloroethylene	0.2%
79-34-5	1,1,2,2-tetrachloroethane	0.2%
87-61-6	1,2,3-trichlorobenzene	0.2%
87-68-3	hexachlorobuta-1,3-diene	0.2%
91-20-3	naphthalene	0.2%
96-12-8	1,2-dibromo-3-chloropropane	0.2%
96-18-4	1,2,3-trichloropropane	0.2%
98-82-8	isopropylbenzene	0.2%
100-41-4	ethylbenzene	0.2%
100-42-5	styrene	0.2%
106-46-7	1,4-dichlorobenzene	0.2%
106-93-4	1,2-dibromoethane	0.2%
107-06-2	1,2-dichloroethane	0.2%
108-88-3	toluene	0.2%
120-82-1	1,2,4-trichlorobenzene	0.2%
124-48-1	dibromochloromethane	0.2%
127-18-4	tetrachloroethylene	0.2%
563-58-6	1,1-dichloropropene	0.2%
630-20-6	1,1,1,2-Tetrachloroethane	0.2%
10061-01-5	(Z)-1,3-dichloropropene	0.2%
10061-02-6	trans-1,3-Dichloropropene	0.2%

· **Chemical identification of the substance/preparation**

74-95-3	dibromomethane	0.2%
74-97-5	bromochloromethane	0.2%
75-34-3	1,1-dichloroethane	0.2%
95-47-6	o-xylene	0.2%
95-49-8	2-chlorotoluene	0.2%
95-50-1	1,2-dichlorobenzene	0.2%
95-63-6	1,2,4-trimethylbenzene	0.2%
98-06-6	tert-butylbenzene	0.2%
99-87-6	p-cymene	0.2%
103-65-1	propylbenzene	0.2%
104-51-8	butylbenzene	0.2%
106-42-3	p-xylene	0.2%
106-43-4	4-chlorotoluene	0.2%
108-38-3	m-xylene	0.2%
108-67-8	mesitylene	0.2%
108-86-1	bromobenzene	0.2%
108-90-7	chlorobenzene	0.2%
135-98-8	sec-butylbenzene	0.2%
142-28-9	1,3-dichloropropane	0.2%
156-59-2	cis-dichloroethylene	0.2%
156-60-5	trans-dichloroethylene	0.2%
541-73-1	1,3-dichlorobenzene	0.2%
594-20-7	2,2-dichloropropane	0.2%

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

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· **After swallowing:** Do not give anything to eat or drink - Do not induce vomitting
· **Information for Doctor:**
· **Most important symptoms and effects, both acute and delayed** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **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.
· **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/m³
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/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
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/m³
100-41-4	ethylbenzene	33 ppm
100-42-5	styrene	20 ppm
103-65-1	propylbenzene	3.7 ppm

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· 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/m³
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/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
96-12-8	1,2-dibromo-3-chloropropane	2.2 ppm
96-18-4	1,2,3-trichloropropane	170 ppm
98-06-6	tert-butylbenzene	18 ppm
98-82-8	isopropylbenzene	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

· PAC-3:		
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/m³
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/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
96-12-8	1,2-dibromo-3-chloropropane	4.3 ppm
96-18-4	1,2,3-trichloropropane	1,000 ppm

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98-06-6	tert-butylbenzene	110 ppm
98-82-8	isopropylbenzene	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

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 item 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; BEI
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/m³, 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 chloroform	
PEL	Ceiling limit value: 240 mg/m³, 50 ppm
REL	Short-term value: 9.78* mg/m³, 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/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

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TLV	Short-term value: (2.5) NIC-0.1 ppm Long-term value: (0.5) NIC-0.02 ppm Skin; BEI, A1
71-55-6 1,1,1-trichloroethane	
PEL	Long-term value: 1900 mg/m³, 350 ppm
REL	Ceiling limit value: 1900* mg/m³, 350* ppm *15-min; See Pocket Guide App. C
TLV	Short-term value: 450 ppm Long-term value: 350 ppm BEI, A4
75-09-2 dichloromethane	
PEL	Short-term value: 125 ppm Long-term value: 25 ppm see 29 CFR 1910.1052
REL	See Pocket Guide App. A
TLV	Long-term value: 50 ppm BEI, A3
75-25-2 bromoform	
PEL	Long-term value: 5 mg/m³, 0.5 ppm Skin
REL	Long-term value: 5 mg/m³, 0.5 ppm Skin
TLV	Long-term value: 0.5 ppm A3
75-35-4 1,1-dichloroethylene	
REL	See Pocket Guide App.A
TLV	Long-term value: 5 ppm A4
78-87-5 propylene dichloride	
PEL	Long-term value: 350 mg/m³, 75 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 10 ppm DSEN, A4
79-00-5 1,1,2-trichloroethane	
PEL	Long-term value: 45 mg/m³, 10 ppm Skin
REL	Long-term value: 45 mg/m³, 10 ppm Skin; See Pocket Guide Apps.A and C
TLV	Long-term value: 10 ppm Skin, A3
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
79-34-5 1,1,2,2-tetrachloroethane	
PEL	Long-term value: 35 mg/m³, 5 ppm Skin
REL	Long-term value: 7 mg/m³, 1 ppm Skin; See Pocket Guide Apps. A and C
TLV	Long-term value: 1 ppm Skin, A3
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

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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
TLV	Long-term value: 10 ppm Skin; BEI, A3
96-12-8 1,2-dibromo-3-chloropropane	
PEL	Long-term value: 0.001 ppm see 29 CFR 1910.1044
REL	See Pocket Guide App. A
96-18-4 1,2,3-trichloropropane	
PEL	Long-term value: 300 mg/m³, 50 ppm
REL	Long-term value: 60 mg/m³, 10 ppm Skin, See Pocket Guide App. A
TLV	Long-term value: 0.005 ppm A2
98-82-8 isopropylbenzene	
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
106-93-4 1,2-dibromoethane	
PEL	Long-term value: 20 ppm Ceiling limit value: 30; 50* ppm *5-min peak per 8-hr shift
REL	Long-term value: 0.045 ppm Ceiling limit value: 0.13* ppm *15-min; See Pocket Guide App. A
TLV	Skin, A3
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
REL	Short-term value: 8 mg/m³, 2 ppm Long-term value: 4 mg/m³, 1 ppm See Pocket Guide Apps. A and C
TLV	Long-term value: 10 ppm A4

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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
REL	Minimize workplace exp. concs.;Pocket Guide App. A
TLV	Short-term value: 100 ppm Long-term value: 25 ppm BEI, A3
630-20-6 1,1,1,2-Tetrachloroethane	
REL	Handle with caution; See Pocket Guide App. C

· **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)
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
75-09-2 dichloromethane	
BEI	0.3 mg/L Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)

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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)
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.

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· **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.
Boiling point/Boiling range:	64.7 °C (148.5 °F)
· **Flash point:**	< 23 °C (< 73.4 °F)
· **Flammability (solid, gaseous):**	Highly flammable.
· **Ignition temperature:**	455 °C (851 °F)
· **Decomposition temperature:**	Not applicable.
· **Auto igniting:**	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):**	128 hPa (96 mm Hg)
· **Density**	Not applicable.
· **Relative density**	Not applicable.
· **Vapor density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not applicable.

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· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **Solvent content:**	
Organic solvents:	94.8 %
VOC content:	94.20 %
Solids content:	0.8 %
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

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

· **LD/LC50 values that are relevant for classification:**		
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:** Sensitization possible through skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic
Irritant
Product is suspected to cause damage to fertility.
Product is suspected to cause birth defects.
The product can cause inheritable damage.

· **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
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

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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.
· **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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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1230
· **UN proper shipping name**	
· **DOT**	Methanol
· **ADR**	1230 METHANOL
· **IMDG, IATA**	METHANOL
· **Transport hazard class(es)**	
· **DOT**	
· **Class**	3 Flammable liquids
· **Label**	3, 6.1
· **ADR**	
· **Class**	3 Flammable liquids
· **Label**	3+6.1
· **IMDG**	
· **Class**	3 Flammable liquids
· **Label**	3/6.1
· **IATA**	
· **Class**	3 Flammable liquids
· **Label**	3 (6.1)
· **Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Warning: Flammable liquids
· **Hazard identification number (Kemler code):**	336
· **EMS Number:**	F-E,S-D
· **Stowage Category**	B
· **Stowage Code**	SW2 Clear of living quarters.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **IMDG**	
· **Limited quantities (LQ)**	1L

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· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1230 METHANOL, 3 (6.1), II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **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):**
This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

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
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

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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
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

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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
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

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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

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

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· **Hazard pictograms**

GHS02 GHS06 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
methanol
benzene
1,2-dibromo-3-chloropropane
carbon tetrachloride
(Z)-1,3-dichloropropene

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

· **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.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
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.

· **National regulations:**

· **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

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** 11/21/2022

· **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 1A: Reproductive toxicity – Category 1A
Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1
Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2