Safety Data Sheet
acc. to OSHA HCS

Printing date 09/20/2017 Reviewed on 09/20/2017

1 Identification

· **Product identifier**

· **Product Name: Method 524.2 Revision 4 Mix (High Level)**

· **Part Number:** 5242-R4
· **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

· **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

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.

GHS08 Health hazard

Carc. 1B H350 May cause cancer.
Repr. 1 H360 May damage fertility or the unborn child.
STOT SE 1 H370 Causes damage to organs.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

GHS07

Skin Sens. 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
acrylonitrile
nitrobenzene
methacrylonitrile
methyl acrylate
methyl methacrylate
ethyl methacrylate
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.

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H317 May cause an allergic skin reaction.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Health = 1
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = *1
Fire = 3
Reactivity = 0

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

3 Composition/information on ingredients

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

· **Dangerous components:**		
67-56-1	methanol	95.2%
74-88-4	iodomethane	0.2%
96-33-3	methyl acrylate	0.2%
126-98-7	methacrylonitrile	0.2%
80-62-6	methyl methacrylate	0.2%
79-46-9	2-nitropropane	0.2%
591-78-6	hexan-2-one	0.2%
108-10-1	4-methylpentan-2-one	0.2%
107-13-1	acrylonitrile	0.2%
107-05-1	3-chloropropene	0.2%
75-15-0	carbon disulphide	0.2%
98-95-3	nitrobenzene	0.2%
76-01-7	pentachloroethane	0.2%
109-99-9	tetrahydrofuran	0.2%
97-63-2	ethyl methacrylate	0.2%
67-72-1	hexachloroethane	0.2%

· **Chemical identification of the substance/preparation**		
1634-04-4	Methyl-tert-butyl ether	0.2%
513-88-2	1,1-dichloroacetone	0.2%
109-69-3	1-chlorobutane	0.2%
78-93-3	butanone	0.2%
67-64-1	acetone	0.2%
107-14-2	chloroacetonitrile	0.2%
107-12-0	propiononitrile	0.2%
110-57-6	trans-2,3-dichlorobut-2-ene	0.2%

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60-29-7	diethyl ether	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.
· **After swallowing:** Do not induce vomiting; immediately call for medical help.
· **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, sand, extinguishing powder. Do not use water.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
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.
Do not flush with water or aqueous cleansing agents
· **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
74-88-4	iodomethane	25 ppm
96-33-3	methyl acrylate	6 ppm
1634-04-4	Methyl-tert-butyl ether	50 ppm
126-98-7	methacrylonitrile	0.091 ppm
80-62-6	methyl methacrylate	17 ppm
109-69-3	1-chlorobutane	4.1 ppm
78-93-3	butanone	200 ppm
79-46-9	2-nitropropane	30 ppm
591-78-6	hexan-2-one	10 ppm
108-10-1	4-methylpentan-2-one	75 ppm
67-64-1	acetone	200 ppm
107-13-1	acrylonitrile	0.15 ppm
107-05-1	3-chloropropene	2.8 ppm
75-15-0	carbon disulphide	13 ppm

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98-95-3	nitrobenzene	3 ppm
107-14-2	chloroacetonitrile	0.45 ppm
76-01-7	pentachloroethane	130 mg/m3
107-12-0	propiononitrile	0.27 ppm
109-99-9	tetrahydrofuran	100 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.078 ppm
97-63-2	ethyl methacrylate	5.5 ppm
60-29-7	diethyl ether	500 ppm
67-72-1	hexachloroethane	3 ppm

· **PAC-2:**

67-56-1	methanol	2,100 ppm
74-88-4	iodomethane	50 ppm
96-33-3	methyl acrylate	170 ppm
1634-04-4	Methyl-tert-butyl ether	570 ppm
126-98-7	methacrylonitrile	1.0 ppm
80-62-6	methyl methacrylate	120 ppm
109-69-3	1-chlorobutane	45 ppm
78-93-3	butanone	2700* ppm
79-46-9	2-nitropropane	380 ppm
591-78-6	hexan-2-one	830 ppm
108-10-1	4-methylpentan-2-one	500 ppm
67-64-1	acetone	3200* ppm
107-13-1	acrylonitrile	1.7 ppm
107-05-1	3-chloropropene	54 ppm
75-15-0	carbon disulphide	160 ppm
98-95-3	nitrobenzene	20 ppm
107-14-2	chloroacetonitrile	5.0 ppm
76-01-7	pentachloroethane	730 mg/m3
107-12-0	propiononitrile	3.0 ppm
109-99-9	tetrahydrofuran	500 ppm
110-57-6	trans-2,3-dichlorobut-2-ene	0.86 ppm
97-63-2	ethyl methacrylate	61 ppm
60-29-7	diethyl ether	3200* ppm
67-72-1	hexachloroethane	36 ppm

· **PAC-3:**

67-56-1	methanol	7200* ppm
74-88-4	iodomethane	125 ppm
96-33-3	methyl acrylate	1,000 ppm
1634-04-4	Methyl-tert-butyl ether	5300* ppm
126-98-7	methacrylonitrile	3.1 ppm
80-62-6	methyl methacrylate	570 ppm
109-69-3	1-chlorobutane	340 ppm
78-93-3	butanone	4000* ppm
79-46-9	2-nitropropane	2,300 ppm
591-78-6	hexan-2-one	5000* ppm
108-10-1	4-methylpentan-2-one	3000* ppm
67-64-1	acetone	5700* ppm
107-13-1	acrylonitrile	28 ppm
107-05-1	3-chloropropene	140 ppm
75-15-0	carbon disulphide	480 ppm
98-95-3	nitrobenzene	200 ppm
107-14-2	chloroacetonitrile	15 ppm
76-01-7	pentachloroethane	1,200 mg/m3
107-12-0	propiononitrile	9.1 ppm
109-99-9	tetrahydrofuran	5000* ppm

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110-57-6	trans-2,3-dichlorobut-2-ene	3.8 ppm
97-63-2	ethyl methacrylate	370 ppm
60-29-7	diethyl ether	19000*** ppm
67-72-1	hexachloroethane	300 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 remaining constituent has 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: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI
74-88-4 iodomethane	
PEL	Long-term value: 28 mg/m³, 5 ppm Skin
REL	Long-term value: 10 mg/m³, 2 ppm Skin; See Pocket Guide App. A
TLV	Long-term value: 12 mg/m³, 2 ppm Skin
96-33-3 methyl acrylate	
PEL	Long-term value: 35 mg/m³, 10 ppm Skin
REL	Long-term value: 35 mg/m³, 10 ppm Skin
TLV	Long-term value: 7 mg/m³, 2 ppm Skin; DSEN
126-98-7 methacrylonitrile	
REL	Long-term value: 3 mg/m³, 1 ppm Skin
TLV	Long-term value: 2.7 mg/m³, 1 ppm Skin
80-62-6 methyl methacrylate	
PEL	Long-term value: 410 mg/m³, 100 ppm

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REL	Long-term value: 410 mg/m³, 100 ppm
TLV	Short-term value: 410 mg/m³, 100 ppm Long-term value: 205 mg/m³, 50 ppm DSEN
79-46-9 2-nitropropane	
PEL	Long-term value: 90 mg/m³, 25 ppm
REL	See Pocket Guide App. A
TLV	Long-term value: 36 mg/m³, 10 ppm
591-78-6 hexan-2-one	
PEL	Long-term value: 410 mg/m³, 100 ppm
REL	Long-term value: 4 mg/m³, 1 ppm
TLV	Short-term value: 40 mg/m³, 10 ppm Long-term value: 20 mg/m³, 5 ppm Skin, BEI
108-10-1 4-methylpentan-2-one	
PEL	Long-term value: 410 mg/m³, 100 ppm
REL	Short-term value: 300 mg/m³, 75 ppm Long-term value: 205 mg/m³, 50 ppm
TLV	Short-term value: 307 mg/m³, 75 ppm Long-term value: 82 mg/m³, 20 ppm BEI
107-13-1 acrylonitrile	
PEL	Long-term value: 2 ppm Ceiling limit value: 10 ppm Skin; see 29 CRF 1910.1045
REL	Long-term value: 1 ppm Ceiling limit value: 10* ppm *15-min; Skin; See Pocket Guide App. A
TLV	Long-term value: 4.3 mg/m³, 2 ppm Skin
107-05-1 3-chloropropene	
PEL	Long-term value: 3 mg/m³, 1 ppm
REL	Short-term value: 6 mg/m³, 2 ppm Long-term value: 3 mg/m³, 1 ppm
TLV	Short-term value: 6 mg/m³, 2 ppm Long-term value: 3 mg/m³, 1 ppm Skin
75-15-0 carbon disulphide	
PEL	Long-term value: 20 ppm Ceiling limit value: 30; 100* ppm *30-min peak per 8-hr shift
REL	Short-term value: 30 mg/m³, 10 ppm Long-term value: 3 mg/m³, 1 ppm Skin
TLV	Long-term value: 3.13 mg/m³, 1 ppm Skin, BEI
98-95-3 nitrobenzene	
PEL	Long-term value: 5 mg/m³, 1 ppm Skin
REL	Long-term value: 5 mg/m³, 1 ppm Skin
TLV	Long-term value: 5 mg/m³, 1 ppm Skin; BEI
76-01-7 pentachloroethane	
REL	Handle with caution; See Pocket Guide App. C
109-99-9 tetrahydrofuran	
PEL	Long-term value: 590 mg/m³, 200 ppm
REL	Short-term value: 735 mg/m³, 250 ppm Long-term value: 590 mg/m³, 200 ppm

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TLV	Short-term value: 295 mg/m³, 100 ppm Long-term value: 147 mg/m³, 50 ppm Skin

67-72-1 hexachloroethane

PEL	Long-term value: 10 mg/m³, 1 ppm Skin
REL	Long-term value: 10 mg/m³, 1 ppm Skin; See Pocket Guide Apps. A and C
TLV	Long-term value: 9.7 mg/m³, 1 ppm Skin

· **Ingredients with biological limit values:**

67-56-1 methanol

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

591-78-6 hexan-2-one

BEI	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis

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

BEI	1 mg/L Medium: urine Time: end of shift Parameter: MIBK

75-15-0 carbon disulphide

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

98-95-3 nitrobenzene

BEI	5 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Total p-nitrophenol (nonspecific) 1.5 % of hemoglobin Medium: blood Time: end of shift Parameter: Methemoglobin (background, nonspecific, semi-quantitative)

109-99-9 tetrahydrofuran

BEI	2 mg/L Medium: urine Time: end of shift Parameter: Tetrahydrofuran

· **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.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
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

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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 °F)
· **Flash point:**	11 °C (52 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **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:	44.0 Vol %
· **Vapor pressure at 20 °C (68 °F):**	128 hPa (96 mm Hg)
· **Density at 20 °C (68 °F)**	0.80362-0.80363 g/cm³ (6.706-6.706 lbs/gal)
· **Relative density**	Not applicable.
· **Vapor density**	Not applicable.
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not applicable.
· **Viscosity:**	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· **Solvent content:**	
Organic solvents:	96.8 %
VOC content:	96.6 %
Solids content:	0.2 %
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.

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· **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	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)
126-98-7 methacrylonitrile		
Oral	LD50	120 mg/kg (rat)
Dermal	LD50	320 mg/kg (rabbit)
79-46-9 2-nitropropane		
Oral	LD50	720 mg/kg (rat)
107-13-1 acrylonitrile		
Oral	LD50	78 mg/kg (rat)
Dermal	LD50	250 mg/kg (rabbit)
Inhalative	LC50/4 h	425 mg/l (rat)
75-15-0 carbon disulphide		
Oral	LD50	3188 mg/kg (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
Carcinogenic.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
74-88-4	iodomethane	3
96-33-3	methyl acrylate	3
1634-04-4	Methyl-tert-butyl ether	3
80-62-6	methyl methacrylate	3
79-46-9	2-nitropropane	2B
108-10-1	4-methylpentan-2-one	2B
107-13-1	acrylonitrile	2B
107-05-1	3-chloropropene	3
98-95-3	nitrobenzene	2B
107-14-2	chloroacetonitrile	3
76-01-7	pentachloroethane	3
110-57-6	trans-2,3-dichlorobut-2-ene	3
67-72-1	hexachloroethane	2B

· **NTP (National Toxicology Program)**		
79-46-9	2-nitropropane	R
107-13-1	acrylonitrile	R
98-95-3	nitrobenzene	R
67-72-1	hexachloroethane	R

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

107-13-1	acrylonitrile

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **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

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· **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
· **Danger code (Kemler):**	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
· **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 355 (extremely hazardous substances):**	
126-98-7	methacrylonitrile
107-13-1	acrylonitrile
75-15-0	carbon disulphide
98-95-3	nitrobenzene
107-12-0	propiononitrile
110-57-6	trans-2,3-dichlorobut-2-ene

· **Section 313 (Specific toxic chemical listings):**	
67-56-1	methanol
74-88-4	iodomethane
96-33-3	methyl acrylate
1634-04-4	Methyl-tert-butyl ether
126-98-7	methacrylonitrile
80-62-6	methyl methacrylate
78-93-3	butanone
79-46-9	2-nitropropane
108-10-1	4-methylpentan-2-one
107-13-1	acrylonitrile
107-05-1	3-chloropropene
75-15-0	carbon disulphide
98-95-3	nitrobenzene
76-01-7	pentachloroethane

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110-57-6	trans-2,3-dichlorobut-2-ene
67-72-1	hexachloroethane

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

67-56-1	methanol
74-88-4	iodomethane
96-33-3	methyl acrylate
1634-04-4	Methyl-tert-butyl ether
126-98-7	methacrylonitrile
80-62-6	methyl methacrylate
109-69-3	1-chlorobutane
78-93-3	butanone
79-46-9	2-nitropropane
591-78-6	hexan-2-one
108-10-1	4-methylpentan-2-one
67-64-1	acetone
107-13-1	acrylonitrile
107-05-1	3-chloropropene
75-15-0	carbon disulphide
98-95-3	nitrobenzene
107-14-2	chloroacetonitrile
76-01-7	pentachloroethane
107-12-0	propiononitrile
109-99-9	tetrahydrofuran
110-57-6	trans-2,3-dichlorobut-2-ene
97-63-2	ethyl methacrylate
60-29-7	diethyl ether
67-72-1	hexachloroethane

· **Proposition 65**

· **Chemicals known to cause cancer:**

74-88-4	iodomethane
79-46-9	2-nitropropane
108-10-1	4-methylpentan-2-one
107-13-1	acrylonitrile
98-95-3	nitrobenzene
67-72-1	hexachloroethane

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

75-15-0	carbon disulphide

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

591-78-6	hexan-2-one
75-15-0	carbon disulphide
98-95-3	nitrobenzene

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

67-56-1	methanol
591-78-6	hexan-2-one
108-10-1	4-methylpentan-2-one
75-15-0	carbon disulphide

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

96-33-3	methyl acrylate	D
80-62-6	methyl methacrylate	E, NL
109-69-3	1-chlorobutane	D
78-93-3	butanone	I
591-78-6	hexan-2-one	II
108-10-1	4-methylpentan-2-one	I
67-64-1	acetone	I

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107-13-1	acrylonitrile	B1
107-05-1	3-chloropropene	C
98-95-3	nitrobenzene	L
109-99-9	tetrahydrofuran	SC
67-72-1	hexachloroethane	L

· **TLV (Threshold Limit Value established by ACGIH)**

96-33-3	methyl acrylate	A4
1634-04-4	Methyl-tert-butyl ether	A3
80-62-6	methyl methacrylate	A4
79-46-9	2-nitropropane	A3
67-64-1	acetone	A4
107-13-1	acrylonitrile	A3
107-05-1	3-chloropropene	A3
75-15-0	carbon disulphide	A4
98-95-3	nitrobenzene	A3
109-99-9	tetrahydrofuran	A3
67-72-1	hexachloroethane	A3

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

74-88-4	iodomethane
79-46-9	2-nitropropane
107-13-1	acrylonitrile
67-72-1	hexachloroethane

· **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
acrylonitrile
nitrobenzene
methacrylonitrile
methyl acrylate
methyl methacrylate
ethyl methacrylate
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.
· **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Store locked up.
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.

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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** 09/20/2017 / -
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport 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
ACGIH: American Conference of Governmental Industrial Hygienists
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
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 1B: Carcinogenicity – Category 1B
Repr. 1: Reproductive toxicity – Category 1
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2