

Printing date 06/15/2023 Reviewed on 06/15/2023

# 1 Identification

- · Product identifier
- · Product Name: Canadian Cannabis Residual Solvent Mix 1
- · Part Name: CAN-CAN-RS-1
- · 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.



Carcinogenicity 1A

H350 May cause cancer.

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

- · 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 ethanol

#### · Hazard statements

H225 Highly flammable liquid and vapor.

H331 Toxic if inhaled.

H350 May cause cancer.

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.

Wear protective gloves/protective clothing/eye protection/face protection. P280

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.



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P308+P313 IF exposed or concerned: Get medical advice/attention.

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.

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



Health = 1 Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = \*1 Fire = 3Reactivity = 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.

	s components:			
67-56-1	methanol	97.5%		
64-17-5	ethanol	0.1%		
1634-04-4	Methyl-tert-butyl ether	0.1%		
· Chemical	Chemical identification of the substance/preparation			
	diethyl ether	0.1%		
64-19-7	acetic acid	0.1%		
67-63-0	isopropyl alcohol	0.1%		
67-64-1	acetone	0.1%		
67-68-5	dimethyl sulfoxide	0.1%		
71-23-8	propan-1-ol	0.1%		
71-36-3	butan-1-ol	0.1%		
71-41-0	Amyl alcohol	0.1%		
78-83-1	2-methylpropan-1-ol	0.1%		
78-92-2	butanol	0.1%		
78-93-3	butanone	0.1%		
	methyl acetate	0.1%		
100-66-3	anisole	0.1%		
108-21-4	isopropyl acetate	0.1%		
109-60-4	propyl acetate	0.1%		
109-66-0	pentane	0.1%		
109-94-4	ethyl formate	0.1%		
110-19-0	isobutyl acetate	0.1%		
121-44-8	triethylamine	0.1%		
	Isoamyl alcohol	0.1%		
	n-butyl acetate	0.1%		
	ethyl acetate	0.1%		
142-82-5	heptane	0.1%		

# 4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

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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 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
60-29-7	diethyl ether	500 ppm
64-17-5	ethanol	1,800 ppn
64-19-7	acetic acid	5 ppm
67-63-0	isopropyl alcohol	400 ppm
67-64-1	acetone	200 ppm
67-68-5	dimethyl sulfoxide	150 ppm
71-23-8	propan-1-ol	250 ppm
	butan-1-ol	60 ppm
78-83-1	2-methylpropan-1-ol	150 ppm
	butanol	150 ppm
78-93-3	butanone	200 ppm
79-20-9	methyl acetate	250 ppm
100-66-3	anisole	1.6 mg/m <sup>3</sup>
108-21-4	isopropyl acetate	200 ppm
109-60-4	propyl acetate	250 ppm
109-66-0	pentane	3000* ppi
	ethyl formate	100 ppm
110-19-0	isobutyl acetate	450 ppm
	triethylamine	1 ppm
123-51-3	Isoamyl alcohol	125 ppm
	n-butyl acetate	5 ppm
	ethyl acetate	1,200 ppn
142-82-5		500 ppm
	Methyl-tert-butyl ether	50 ppm

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PAC-2:	Ta a · ·
67-56-1 methanol	2,100 ppm
60-29-7 diethyl ether	3200* ppm
64-17-5 ethanol	3300* ppm
64-19-7 acetic acid	35 ppm
67-63-0 isopropyl alcohol	2000* ppm
67-64-1 acetone	3200* ppm
67-68-5 dimethyl sulfoxide	290 ррт
71-23-8 propan-1-ol	670 ppm
71-36-3 butan-1-ol	800 ppm
78-83-1 2-methylpropan-1-ol	1,300 ppm
78-92-2 butanol	220 ppm
78-93-3 butanone	2700* ppm
79-20-9 methyl acetate	1,700 ppm
100-66-3 anisole	18 mg/m³
108-21-4 isopropyl acetate	2700* ppm
109-60-4 propyl acetate	1,300 ppm
109-66-0 pentane	33000*** ppi
109-94-4 ethyl formate	1,300 ppm
110-19-0 isobutyl acetate	1300* ppm
121-44-8 triethylamine	170 ppm
123-51-3 Isoamyl alcohol	1700* ppm
123-86-4 n-butyl acetate	200 ppm
141-78-6 ethyl acetate	1,700 ppm
142-82-5 heptane	830 ppm
1634-04-4 Methyl-tert-butyl ether	570 ppm
• PAC-3:	
67-56-1 methanol	7200* ppm
60-29-7 diethyl ether	19000*** ppm
64-17-5 ethanol	15000* ppm
64-19-7 acetic acid	250 ppm
67-63-0 isopropyl alcohol	12000** ppm
67-64-1 acetone	5700* ppm
67-68-5 dimethyl sulfoxide	1,800 ppm
71-23-8 propan-1-ol	4000* ppm
71-36-3   butan-1-ol	8000** ppm
78-83-1 2-methylpropan-1-ol	8000* ppm
78-92-2 butanol	10000** ppm
78-93-3   butanone	4000* ppm
79-20-9 methyl acetate	10000* ppm
100-66-3 anisole	110 mg/m <sup>3</sup>
108-21-4 isopropyl acetate	16000** ppm
109-60-4 propyl acetate	8000* ppm
109-00-4   propyi acetate	20000*** ppii
100.66.0 poutage	[200000 · · · ppi
109-66-0 pentane	9000*
109-94-4 ethyl formate	8000* ppm
109-94-4 ethyl formate 110-19-0 isobutyl acetate	7500** ppm
110-94-4 ethyl formate 110-19-0 isobutyl acetate 121-44-8 triethylamine	7500** ppm 1,000 ppm
109-94-4 ethyl formate 110-19-0 isobutyl acetate 121-44-8 triethylamine 123-51-3 Isoamyl alcohol	7500** ppm 1,000 ppm 10000** ppm
109-94-4       ethyl formate         110-19-0       isobutyl acetate         121-44-8       triethylamine         123-51-3       Isoamyl alcohol         123-86-4       n-butyl acetate	7500** ppm 1,000 ppm 10000** ppm 3000* ppm
109-94-4       ethyl formate         110-19-0       isobutyl acetate         121-44-8       triethylamine         123-51-3       Isoamyl alcohol         123-86-4       n-butyl acetate         141-78-6       ethyl acetate	7500** ppm 1,000 ppm 10000** ppm 3000* ppm 10000** ppm
109-94-4       ethyl formate         110-19-0       isobutyl acetate         121-44-8       triethylamine         123-51-3       Isoamyl alcohol         123-86-4       n-butyl acetate	7500** ppm 1,000 ppm 10000** ppm 3000* ppm

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# 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

	· Cont	roi parameters
	· Components with limit values that require monitoring at the workplace:	
	67-56-1 methanol	
		Long-term value: 260 mg/m³, 200 ppm
		Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
		Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI
- 1	•	

# 64-17-5 ethanol

PEL Long-term value: 1900 mg/m³, 1000 ppm
REL Long-term value: 1900 mg/m³, 1000 ppm
TLV Short-term value: 1000 ppm
A3

# 1634-04-4 Methyl-tert-butyl ether

TLV Long-term value: 50 ppm A3

# · 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:





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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

- 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:



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: Boiling point/Boiling range:	Undetermined. 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 at 20 °C (68 °F)	0.79119 g/cm³ (6.60248 lbs/gal)		
· Relative density	Not applicable.		
· Vapor density	Not applicable.		
· Evaporation rate	Not applicable.		
· Solubility in / Miscibility with Water:			
	Fully miscible.		
· Partition coefficient (n-octanol/wate · Viscosity:	a), 1101 upplicable.		
Dynamic:	Not applicable.		
Kinematic:	Not applicable.		
· Solvent content:			
Organic solvents:	99.9 %		
VOC content:	99.70 %		
Solids content:	0.0 %		
· 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.



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- · 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/LC5	· LD/LC50 values that are relevant for classification: 67-56-1 methanol	
67-56-1		
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)			
64-17-5 ethanol	1		
67-63-0 isopropyl alcohol	3		
1634-04-4 Methyl-tert-butyl ether	3		
· NTP (National Toxicology Program)			
None of the ingredients is listed.			
· OSHA-Ca (Occupational Safety & Health Administration)			
None of the ingredients is listed.			

# 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- $\cdot \textit{Bioaccumulative potential No further relevant information available}.$
- · Mobility in soil No further relevant information available.
- $\cdot Additional\ ecological\ information:$
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

- Danger to drinking water if even 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:
- $\cdot \textit{Recommendation:}\ Disposal\ must\ be\ made\ according\ to\ official\ regulations.$
- Recommended cleansing agent: Water, if necessary with cleansing agents.

# 14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	UN1230
· UN proper shipping name	
$\cdot DOT$	Methanol
ADR	1230 METHANOL
· IMDG, IATA	METHANOL

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· Transport	hazard	class(	es)
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 $\cdot DOT$ 





· Class 3 Flammable liquids

3, 6.1 · Label

 $\cdot$  ADR





3 Flammable liquids · Class · Label

· IMDG





3 Flammable liquids · Class · Label

3/6.1

 $\cdot$  IATA





3 Flammable liquids · Class · 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 R

· 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:

 $\cdot ADR$ · Excepted quantities (EQ)

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

 $\cdot$  IMDG

· Limited quantities (LQ) 1L

Code: E2 · Excepted quantities (EQ)

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

	~	
· Section 313 (Specific toxic chemical listings):		
	67-56-1 methanol	
	67-63-0 isopropyl alcohol	

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# Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

67-56-1 methanol 64-17-5 ethanol

# · Carcinogenic categories

· EPA (Env	· EPA (Environmental Protection Agency)			
67-64-1	acetone	I		
71-36-3	butan-1-ol	D		
78-93-3		Ι		
142-82-5	heptane	D		
· TLV (Thre	shold Limit Value)			
	ethanol	A3		
67-63-0	isopropyl alcohol	A4		
67-64-1	acetone	A4		
71-23-8	propan-1-ol	A4		
121-44-8	triethylamine	A4		
1634-04-4	Methyl-tert-butyl ether	<i>A3</i>		

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

None of the ingredients is listed.

- · 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

ethanol

# · Hazard statements

H225 Highly flammable liquid and vapor.

H331 Toxic if inhaled.

H350 May cause cancer.

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.



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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).

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

· 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 06/15/2023

# · 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

Carcinogenicity 1A: Carcinogenicity - Category 1A

Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) - Category 1

US -