



SAFETY DATA SHEET

1. Identification

Product identifier	Cannabinoids Mixture	
Other means of identification		
Catalog number	1089183	
Recommended use	Specified quality tests and assay use only.	
Recommended restrictions	Not for use as a drug. Not for administration to humans or animals.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Company name	U. S. Pharmacopeia	
Address	12601 Twinbrook Parkway Rockville MD 20852-1790 United States	
Telephone	RS Technical Services	301-816-8129
Website	www.usp.org	
E-mail	RSTECH@usp.org	
Emergency phone number	CHEMTREC within US & Canada	1-800-424-9300
	CHEMTREC outside US & Canada	+1 703-527-3887

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Specific target organ toxicity, single exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes damage to organs.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.
Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a poison center/doctor if you feel unwell. Wash contaminated clothing before re-use. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor. In case of fire: Use appropriate media for extinction.
Storage	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Pharmacologically active material.

3. Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Methyl Alcohol	Wood alcohol	67-56-1	99.96
Cannabidiol		13956-29-1	0.02
delta-9-Tetrahydrocannabinol		1972-08-3	0.01
CANNABINOL		521-35-7	0.003
Cannabichromene		20675-51-8	0.003
Cannabidivarin		24274-48-4	0.003
Cannabigerol		25654-31-3	0.003
Delta-8-Tetrahydrocannabinol		5957-75-5	0.003
Tetrahydrocannabivarin		31262-37-0	0.003

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if the substance is inhaled. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if irritation develops and persists. Wash clothing separately before reuse.
Eye contact	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth thoroughly. Do not use mouth-to-mouth method if substance is ingested. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Pharmacologically active material. Occupational exposure may cause physiological effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	By heating and fire, harmful vapors/gases may be formed.
Special protective equipment and precautions for firefighters	Use protective equipment appropriate for surrounding materials.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Wear appropriate personal protective equipment. Avoid inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Absorb spillage with suitable absorbent material. Remove sources of ignition. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential.

Conditions for safe storage, including any incompatibilities

Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

8. Exposure controls/personal protection

Occupational exposure limits

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.

U.S. - OSHA

Components

Components	Type	Value	Form
Methyl Alcohol (CAS 67-56-1)	PEL	200 ppm	Skin

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methyl Alcohol (CAS 67-56-1)	PEL	260 mg/m3
		200 ppm

ACGIH

Components

Components	Type	Value	Form
Methyl Alcohol (CAS 67-56-1)	STEL	250 ppm	Skin

US. ACGIH Threshold Limit Values

Components	Type	Value
Methyl Alcohol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

U.S. - NIOSH

Components

Components	Type	Value	Form
Methyl Alcohol (CAS 67-56-1)	IDLH	6000 ppm	
	STEL	250 ppm	Skin

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Methyl Alcohol (CAS 67-56-1)	STEL	325 mg/m3
		250 ppm
	TWA	260 mg/m3
		200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methyl Alcohol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Methyl Alcohol (CAS 67-56-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Methyl Alcohol (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Methyl Alcohol (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methyl Alcohol (CAS 67-56-1) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Methyl Alcohol (CAS 67-56-1) Can be absorbed through the skin.

Appropriate engineering controls

For laboratory operations, handle solutions outside of containment or without local exhaust ventilation only during procedures with no potential for aerosolization. Handle solutions where aerosolization may occur (e.g. vortexing, pipetting, pumping) in a chemical fumehood, biological safety cabinet or ventilated balance enclosure. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Skin protection

Hand protection

Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

Other

Train employees in proper gowning and degowning practices. Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors.

Respiratory protection

Respirators are generally not required for laboratory operations. Use a tight-fitting full-face respirator with HEPA filters for spill cleanup. Choose respiratory protection appropriate to the task and the level of existing engineering controls.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Handling practices in this SDS are recommendations for laboratory use of reference standards. Procedures for any other uses or quantities should be determined after an appropriate assessment.

9. Physical and chemical properties

Appearance

Appearance descriptions are general information and not specific to any USP lot.

Physical state

Liquid.

Form

Liquid.

Color

Colorless.

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Explosive limit - lower (%)** Not available.**Explosive limit - upper (%)** Not available.**Vapor pressure** Not available.**Vapor density** Not available.**Relative density** Not available.**Solubility(ies)****Solubility (water)** Not available.**Auto-ignition temperature** Not available.**Decomposition temperature** Not available.**Viscosity** Not available.**10. Stability and reactivity****Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.**Chemical stability** Material is stable under normal conditions.**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.**Conditions to avoid** Contact with incompatible materials.**Incompatible materials** Strong oxidizing agents.**Hazardous decomposition products** Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.**11. Toxicological information****Information on likely routes of exposure****Inhalation** Toxic if inhaled.**Skin contact** Toxic in contact with skin.**Eye contact** Knowledge about health hazard is incomplete.**Ingestion** Toxic if swallowed.**Symptoms related to the physical, chemical, and toxicological characteristics** For methanol: Headache. Dizziness. Restlessness. Vomiting. Abdominal pain. Back pain. Difficulty breathing. Cold, clammy extremities. Blurred or dim vision. Dilated, unreactive pupils.**Information on toxicological effects****Acute toxicity** Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.

Components	Species	Test Results
Delta-8-Tetrahydrocannabinol (CAS 5957-75-5)		
<u>Acute</u>		
Oral		
LD50	Rat	860 mg/kg
delta-9-Tetrahydrocannabinol (CAS 1972-08-3)		
<u>Acute</u>		
Oral		
LD50	Rat	666 mg/kg
Methyl Alcohol (CAS 67-56-1)		
<u>Acute</u>		
Oral		
LD50	Rat	1187 - 2769 mg/kg
Skin corrosion/irritation	Based on available data, the classification criteria are not met.	
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.	

Local effects
Methyl Alcohol

Eye irritation
Result: Non-irritant.
Species: Rabbit
Skin irritation
Result: Non-irritant.
Species: Rabbit

Respiratory or skin sensitization

Respiratory sensitization Knowledge about health hazard is incomplete.

Skin sensitization Based on available data, the classification criteria are not met.

Methyl Alcohol

Maximisation Test
Result: Non-sensitizing
Species: Guinea pig
Organ: Skin

Germ cell mutagenicity

Knowledge about mutagenicity is incomplete.

Mutagenicity

Cannabidiol

Ames test
Result: Negative.

delta-9-Tetrahydrocannabinol

Ames test
Result: Negative.

Methyl Alcohol

Ames test (Salmonella typhimurium)
Result: Negative (+/- activation)

delta-9-Tetrahydrocannabinol

Chromosome aberration, Chinese hamster ovary cells
Result: Negative.

Micronucleus assay
Result: Negative.

Species: Mouse

Cannabidiol

Micronucleus test

Result: Negative.

delta-9-Tetrahydrocannabinol

Mutagenicity, Sister chromatid exchange test in Chinese hamster ovary cells

Result: Weakly positive.

Methyl Alcohol

Mutagenicity: Chromosome damage in mice

Result: Negative

Mutagenicity: Grasshoppers

Result: Positive

Mutagenicity: Yeast

Result: Positive

Carcinogenicity

Knowledge about carcinogenicity is incomplete.

Methyl Alcohol

10 - 1000 ppm Carcinogenicity

Result: Not carcinogenic

Species: Rat

Organ: Inhalation

Test Duration: 18 months

delta-9-Tetrahydrocannabinol

125 mg/kg Carcinogenicity, Equivocal evidence of carcinogenicity.

Species: Mouse

Test Duration: 2 years

50 mg/kg/day Carcinogenicity

Result: Negative.

Species: Rat

Test Duration: 2 years

Methyl Alcohol

Carcinogenicity: 25mL/twice weekly

Result: One tumor out of 80 specimens.

Species: Mouse

Organ: Dermal

Test Duration: 50 weeks

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

Knowledge about health hazard is incomplete.

Reproductivity

Cannabidiol

0 - 250 mg/kg/day Reproductivity: Administered to pregnant rats throughout the period of organogenesis
Result: Embryofetal mortality observed at the highest dose tested.

Species: Rat

150 - 250 mg/kg/day Reproductivity: administered to rats throughout pregnancy and lactation

Result: Decreased growth, delayed sexual maturation, decreased activity, and adverse effects on male reproductive organ development and fertility observed in offspring.

Species: Rat

delta-9-Tetrahydrocannabinol

200 mg/kg Reproductivity / Developmental, Small increase in malformation rate compared to controls (administered orally during gestation).

Species: Mouse

Methyl Alcohol

20000 ppm Gestational study, Increased incidence of anomalies and maternal effects at high doses.

Species: Rat

Organ: Inhalation

Developmental Toxicity, Behavioral effects in offspring; increased incidence of anomalies; maternal toxicity.

Species: Rat

Gestational study, High doses increased fetal resorptions and malformations, including neural, cranial, and ocular defects.

Species: Mouse

delta-9-Tetrahydrocannabinol

Reproductivity / Developmental, 15 - 450 mg/m2 Maternal toxicity, embryo toxicity, and fetal toxicity. No evidence of teratogenicity.

Species: Mouse

Reproductivity / Developmental, 74 - 295 mg/m2 Maternal toxicity, embryo toxicity, and fetal toxicity. No evidence of teratogenicity.

Species: Rat

Specific target organ toxicity - single exposure Causes damage to organs.

Specific target organ toxicity - repeated exposure Knowledge about health hazard is incomplete.

Aspiration hazard Knowledge about health hazard is incomplete.

Further information Pharmacologically active material. Occupational exposure may cause physiological effects.

12. Ecological information

Ecotoxicity

Components		Species	Test Results
Methyl Alcohol (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

delta-9-Tetrahydrocannabinol 6.97

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

D001: Waste Flammable material with a flash point <140 F

U154: Waste Methyl alcohol

Waste from residues / unused products

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information**DOT**

UN number	UN1230
UN proper shipping name	Methanol, solution
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1230
UN proper shipping name	Methanol solution
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

DOT**IATA****General information**

It is the shipper's responsibility to determine the correct transport classification at the time of shipment.

15. Regulatory information**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methyl Alcohol (CAS 67-56-1) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical

Classified hazard categories Yes
 Flammable (gases, aerosols, liquids, or solids)
 Acute toxicity (any route of exposure)
 Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Methyl Alcohol	67-56-1	99.96

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Methyl Alcohol (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****California Proposition 65**

WARNING: This product can expose you to Methyl Alcohol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Developmental toxin

Methyl Alcohol (CAS 67-56-1) Listed: March 16, 2012

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Methyl Alcohol (CAS 67-56-1)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-06-2020

Version # 01

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