

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1 Product identifiers Product name 7-Hydroxyquetiapine solution Product Number : H-081 Brand : Cerilliant 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses : Laboratory chemicals, Synthesis of substances 1.3 Details of the supplier of the safety data sheet : Sigma-Aldrich Inc. Company 3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES : +1 314 771-5765 Telephone Fax : +1 800 325-5052 1.4 **Emergency telephone** 800-424-9300 CHEMTREC (USA) +1-703-Emergency Phone # : 527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

# **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Specific target organ toxicity - single exposure (Category 1), H370 Short-term (acute) aquatic hazard (Category 3), H402 Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

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Hazard statement(s)	
H225	Highly flammable liquid and vapor.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs.
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	
P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233	Keep container tightly closed.
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.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/ physician.
P322	Specific measures (see supplemental first aid instructions on
	this label).
P330	Rinse mouth.
P361	Remove/ Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant
	foam for extinction.
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 to an approved waste disposal
	plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

# **SECTION 3:** Composition/information on ingredients

# 3.2 Mixtures

Component		Classification	Concentration
Methanol			
CAS-No.	67-56-1	Flam. Liq. 2; Acute Tox. 3;	>= 90 - <=
EC-No.	200-659-6	STOT SE 1; H225, H301,	100 %
Index-No.	603-001-00-X	H331, H311, H370	
Registration	01-2119433307-44-	Concentration limits:	
number	XXXX	>= 10 %: STOT SE 1,	
		H370; 3 - < 10 %: STOT	

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11271.	
HX/I	
H371;	

For the full text of the H-Statements mentioned in this Section, see Section 16.

# **SECTION 4: First aid measures**

#### 4.1 Description of first-aid measures

#### **General advice**

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed** No data available

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

# Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- **5.2** Special hazards arising from the substance or mixture Carbon oxides
- **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information

Use water spray to cool unopened containers.

# **SECTION 6:** Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of

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vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

# 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations (see section 13).

# 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

## Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

### Advice on protection against fire and explosion

Use explosion-proof equipment. **Advice on protection against fire and explosion** Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### **Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Storage stability

Recommended storage temperature -20 °C

Storage class (TRGS 510): 3: Flammable liquids

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

## Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Methanol	67-56-1	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Danger of cutaneous absorption		

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STEL	250 ppm	USA. ACGIH Threshold Limit Values (TLV)		
Danger o	Danger of cutaneous absorption			
TWA	200 ppm 260 mg/m3	USA. NIOSH Recommended Exposure Limits		
Potentia	Potential for dermal absorption			
ST	250 ppm	USA. NIOSH Recommended		
	325 mg/m3	Exposure Limits		
Potentia	for dermal absor			
TWA	200 ppm 260 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants		
STEL	250 ppm 325 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000		
Skin not	ation			
TWA	200 ppm 260 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000		
Skin not	Skin notation			
С	1,000 ppm	California permissible exposure limits for chemical contaminants (Title 8, Article 107)		
Skin				
PEL	200 ppm 260 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)		
Skin				
STEL	250 ppm 325 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)		
Skin				

# Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Methanol	67-56-1	Methanol	15 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
Remarks End of shift (As soon as possible after expos				osure ceases)	

## 8.2 Exposure controls

## Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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# **Personal protective equipment**

# Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 30 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

## **Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## **Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

- a) Appearance Form: liquid
- b) Odor No data available
- c) Odor Threshold No data available

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	d)	рН	No data available
	e)	Melting point/freezing point	No data available
	f)	Initial boiling point and boiling range	64 - 65 °C 147 - 149 °F at 1.013 hPa
	g)	Flash point	9.7 °C (49.5 °F) - closed cup
	h)	Evaporation rate	No data available
	i)	Flammability (solid, gas)	No data available
	j)	Upper/lower flammability or explosive limits	Upper explosion limit: 36 %(V) Lower explosion limit: 6 %(V)
	k)	Vapor pressure	No data available
	I)	Vapor density	No data available
	m)	Relative density	No data available
	n)	Water solubility	No data available
	o)	Partition coefficient: n-octanol/water	No data available
	p)	Autoignition temperature	No data available
	q)	Decomposition temperature	No data available
	r)	Viscosity	No data available
	s)	Explosive properties	No data available
	t)	Oxidizing properties	No data available
9.2		er safety information	n

No data available

## SECTION 10: Stability and reactivity

#### **10.1 Reactivity**

No data available

**10.2 Chemical stability** Stable under recommended storage conditions.

## **10.3** Possibility of hazardous reactions

Vapors may form explosive mixture with air.

## **10.4** Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

## **10.5** Incompatible materials

Acids, Oxidizing agents, Alkali metals, Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides, Reducing agents, Strong reducing agents, Phosphorus halides

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# **10.6 Hazardous decomposition products**

In the event of fire: see section 5

#### SECTION 11: Toxicological information

#### **11.1** Information on toxicological effects

#### Mixture

Acute toxicity Oral: No data available

Inhalation: No data available

Dermal: No data available

No data available

**Skin corrosion/irritation** No data available

Serious eye damage/eye irritation No data available

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

#### Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

- ACGIH: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

## **Reproductive toxicity**

No data available

#### Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

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# Aspiration hazard

No data available

# **11.2 Additional Information**

Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made nonpoisonous., Effects due to ingestion may include:, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Dizziness, Weakness, Confusion. Central nervous system - Breathing difficulties - Based on Human Evidence

## Components

## Methanol

## **Acute toxicity**

Acute toxicity estimate Oral - 100.1 mg/kg (Expert judgment) Symptoms: Nausea, Vomiting Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l (Expert judgment) Symptoms: Irritation symptoms in the respiratory tract. Acute toxicity estimate Dermal - 300.1 mg/kg (Expert judgment)

# Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation Remarks: (ECHA) Drying-out effect resulting in rough and chapped skin.

## Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation Remarks: (ECHA)

## Respiratory or skin sensitization

Sensitisation test: - Guinea pig Result: negative (OECD Test Guideline 406)

# Germ cell mutagenicity

Based on available data the classification criteria are not met. Ames test Salmonella typhimurium Result: negative In vitro mammalian cell gene mutation test Chinese hamster lung cells Result: negative OECD Test Guideline 474 Mouse - male and female - Bone marrow Result: negative

## Carcinogenicity

Did not show carcinogenic effects in animal experiments.

## **Reproductive toxicity**

Based on available data the classification criteria are not met.

## Specific target organ toxicity - single exposure

Causes damage to organs. - Eyes, Central nervous system

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Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acute oral toxicity - Nausea, Vomiting Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

**Specific target organ toxicity - repeated exposure** No data available

**Aspiration hazard** No data available

# **SECTION 12: Ecological information**

#### **12.1 Toxicity**

- **Mixture** No data available
- 12.2 Persistence and degradability No data available
- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available

# **12.5** Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

## Components

#### **Methanol**

Toxicity to fish	flow-through test LC50 - Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - Daphnia magna (Water flea) - 18,260 mg/l - 96 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - ca. 22,000.0 mg/l - 96 h (OECD Test Guideline 201)
Toxicity to bacteria	static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)

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# SECTION 13: Disposal considerations

# 13.1 Waste treatment methods

# Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

## **Contaminated packaging**

Dispose of as unused product.

## **SECTION 14:** Transport information

#### DOT (US)

UN number: 1230 Class: 3 Packing group: II Proper shipping name: MethanolSOLUTION

Reportable Quantity (RQ): Poison Inhalation Hazard: No

#### IMDG

UN number: 1230 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D Proper shipping name: METHANOLSOLUTION

# ΙΑΤΑ

UN number: 1230 Class: 3 (6.1) Packing group: II Proper shipping name: MethanolSOLUTION

## SECTION 15: Regulatory information

## SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01

## SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components		
	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01

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No components are subject to the Massachusetts Right to Know Act.

<b>Pennsylvania Right To Know Components</b>	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01
Methanol	CAS-No. 67-56-1	Revision Date 2007-07-01
New Jersey Right To Know Components	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01
<b>California Prop. 65 Components</b> WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.Methanol	CAS-No. 67-56-1	Revision Date 2012-03-16

# **SECTION 16: Other information**

#### **Further information**

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