

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
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SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifiers

Product name Methanol
Product Number PSI024
Brand PureSynth Research Chemicals
CAS No. 67-56-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : PurTech Standard for GC

1.3 Details of the supplier of the safety data sheet

Company PureSynth Research Chemicals Pvt. Ltd.
FB-121, High Street mall, Kapurbawdi junction, Thane (W)

1.4 Emergency telephone number

Worldwide Helpline No.: 1800-8908-260

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

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), Eyes, Central nervous system, H370

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word Danger

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 (Eyes, Central nervous system).

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and Other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/ protective clothing/ eye protection/ face Protection/ hearing protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated Clothing. Rinse skin with water.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable For breathing. Call a POISON CENTER/ doctor.
Supplemental Hazard Statements	none

2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
Methyl alcohol	CH ₄ O	67-56-1
Component	Classification	Concentration
Methanol	Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370 Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371;	<= 100 %

SECTION 4: First aid measures

Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
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	After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).
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

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire fighting measures

Extinguishing media	Foam Carbon dioxide (CO ₂) Dry powder Water
Suitable extinguishing media	
Special hazards arising from the substance or mixture	Carbon oxides Combustible.
Advice for fire-fighters	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

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 vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	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. Store in cool place. Storage class (TRGS 510): 3: Flammable liquids
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

Control parameters	No data available
Exposure controls	
Appropriate engineering controls	No data available.
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.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., 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 full- face respirator with multi-purpose combination (US) or type AXBEK (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.

SECTION 9: Physical and chemical properties

Appearance	Form: Liquid Colour: Colourless
Odour	characteristic
pH - Value	No data available
Density	0.791 g/mL at 25 °C
Boiling Point	64.7 °C
Melting Point	-98 °C
Solubility in water	Completely miscible at 20 °C soluble
Flash point	9.7 °C - closed cup
Vapour pressure	128 hPa at 20 °C
Auto -ignition temperature	455.0 °C at 1.013 hPa
Vapour density	1.11
Flammability (solid, gas)	No data available
Evaporation rate	6.3 - Diethyl ether 1.9 - n-butyl acetate
Partition coefficient: n- octanol / water	Log Pow: -0.77 - (Lit.), Bioaccumulation is not expected.
Viscosity	Viscosity, kinematic: 0.54 – 0.59 mm ² /s at 20 °C Viscosity, dynamic: No data available
Explosive properties	No data available
Upper / lower flammability or explosive limits	Upper explosion limit: 44 %(V) Lower explosion limit: 5.5 %(V)
Oxidizing properties	No data available

Other safety information: No data available

Minimum ignition energy 0,14 mJ

Conductivity	< 1 µS/cm
Relative vapour density	1,11

SECTION 10: Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions. Risk of explosion with: Oxidizing agents per chloric acid perchlorates salts of oxyhalogenic acids chromium(VI) oxide halogen oxides nitrogen oxides non-metallic oxides chromosulfuric acid chlorates hydrides zinc diethyl halogens powdered magnesium hydrogen peroxide Nitric acid
Possibility of hazardous reactions	sulphuric acid permanganic acid sodium hypochlorite Exothermic reaction with: acid halides Acid anhydrides Reducing agents acids Bromine Chlorine Chloroform magnesium tetrachloromethane Risk of ignition or formation of inflammable gases or vapours with: Fluorine Oxides of phosphorus Raney-nickel Generates dangerous gases or fumes in contact with: Alkaline earth metals Alkali metals
Condition to avoid	Heat, flames and sparks.
Incompatible materials	Magnesium, zinc alloys, various plastics Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	Acute toxicity estimate Oral - 100,1 mg/kg (Expert judgment) Remarks: Classified according to Regulation (EU) 1272/2008 Symptoms: Nausea, Vomiting Acute toxicity estimate Inhalation - 4 h – 3.1 mg/l (Expert judgment) Remarks: Classified according to Regulation (EU) 1272/2008 Symptoms: Irritation symptoms in the respiratory tract.
Skin corrosion/irritation	Acute toxicity estimate Dermal – 300.1 mg/kg (Expert judgment) Remarks: Classified according to Regulation (EU) 1272/2008 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) Based on available data the classification criteria are not met. Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation
Germ cell mutagenicity	Method: OECD Test Guideline 476 Result: negative Test Type: Micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative
Carcinogenicity	No data available
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 Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	RTECS: PC1400000 Acute effects:, Headache, Dizziness, Drowsiness, narcosis, Blindness, Impairment of vision, irritant effects, Nausea, Vomiting, agitation, spasms, inebriation, Coma Drying-out effect resulting in rough and chapped skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

acidosis

drop in blood pressure

agitation, spasms

inebriation

Dizziness

Drowsiness

Headache

Impairment of vision

Blindness

narcosis

Coma

Symptoms may be delayed.

Damage to:

Liver Kidney

Cardiac

Irreversible damage of the optical nerve.

Other dangerous properties cannot be excluded.

This substance should be handled with particular care.

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - *Lepomis macrochirus* (Bluegill) – 15400.0 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)

Persistence and degradability

Biodegradability

Result: 99 % - Readily biodegradable.
(OECD Test Guideline 301D)

Biochemical Oxygen Demand (BOD)

600 - 1.120 mg/g
Remarks: (IUCLID)

Chemical Oxygen Demand (COD)

1.420 mg/g
Remarks: (IUCLID)

Theoretical oxygen demand

1.500 mg/g
Remarks: (Lit.)

Ratio BOD/ThBOD

76 % Remarks: Closed Bottle test(IUCLID)

Bio accumulative potential

Bioaccumulation

No data available
Cyprinus carpio (Carp) - 72 d
at 20 °C - 5 mg/l(Methanol) Bio concentration factor (BCF): 1,0

Mobility in soil

Will not adsorb on soil.

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at Levels of 0.1% or higher.

Other adverse effects

Additional ecological information

Avoid release to the environment.

Stability in water

at 19 °C 83 - 91 % - 72 h

Remarks: Hydrolyses on contact with water. Hydrolyzes readily.

SECTION 13: Disposal considerations

Waste treatment methods	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleansed containers like the product itself.
Products	
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	1230	METHANOL	3 (6.1)	II	No
IMDG	1230	METHANOL	3 (6.1)	II	No
IATA	1230	Methanol	3 (6.1)	II	No

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Methanol

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous Substances. : ACUTE TOXIC
: FLAMMABLE LIQUIDS

Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

Chemical safety assessment

For this product a chemical safety assessment has been carried out.

SECTION 16: Other information

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.