SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Revision date: 30/03/2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifiers

Product name	Isopropyl Alcohol
Product Number	PSR28296
Brand	PureSynth research chemicals
CAS No.	67-63-0

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

Identified uses : PurCert Standard for GC

1.3 Details of the supplier of the safety data sheet

Company **PureSynth Research Chemicals Pvt. Ltd.**

A-27, A.P.I.E, Hyderabad, Telangana-500037

1.4 Emergency telephone number

Worldwide Helpline No.: 1800-120-1234-34

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: Highly flammable liquid and vapor
Eye irritation, (Category 2)	H319: Causes serious eye irritation
Specific target organ toxicity - single exposure, (Category 3), Central nervous system	H336: May cause drowsiness or dizziness.

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Danger

Hazard statement(s)

H225	Flammable liquid and vapor.
H336	May cause drowsiness or dizziness.
H319	Causes serious eye irritation.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use non-sparking tools.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	**Mol. formula**	**CAS number**
sec-Propyl alcohol Isopropyl alcohol Isopropanol	C_3H_8O	67-63-0
Component	**Classification**	**Concentration**
2-Propanol	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336 Concentration limits: >= 20 %: STOT SE 3, H336;	<= 100 %

SECTION 4: First aid measures

Description of first aid measures

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
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 **Unsuitable extinguishing media**	Carbon dioxide (CO2) Foam Dry powder For this substance/mixture no limitations of extinguishing agents are given
Special hazards arising from the substance or mixture	Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.
Advice for fire-fighters	In the event of fire, wear self-contained breathing apparatus.
Further information	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Handle and store under inert gas. Hygroscopic
Specific end use(s)	Storage class (TRGS 510): 3: Flammable liquids Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls / Personal protection

Control parameters	Ingredients with workplace control parameters

Exposure controls	Personal protective equipment
Appropriate engineering controls	
Personal protective equipment:	
Eye / face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggle This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: KCL 741 Dermatril® This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 l, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L
Skin protection	
Body Protection	Flame retardant antistatic protective clothing.
Respiratory protection	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Control of environmental exposure	Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Appearance	Form: liquid Colour: colorless
Odour	alcohol-like
pH - Value	at 20 °C neutral
Density	0.785 g/mL at 25 °C
Boiling Point	82 °C
Melting Point	-89.5 °C
Solubility in water	at 20 °C soluble
Flash point	12.0 °C - closed cup
Vapour pressure	No data available
Auto -ignition temperature	425.0 °C

Vapour density	No data available
Flammability (solid, gas)	No data available
Evaporation rate	No data available
Partition coefficient: n- octanol / water	log Pow: 0.05 - Bioaccumulation is not expected.
Viscosity	Viscosity, dynamic: 2.2 mPa.s at 20 °C
Explosive properties	No data available
Upper / lower flammability or explosive limits	Upper explosion limit: 13.4 %(V) Lower explosion limit: 2 %(V)
Oxidizing properties	none

Other safety information: Minimum ignition energy 0.65 mJ
Conductivity < 0.1 µS/cm
Surface tension 20.8 mN/m at 250 °C
Relative vapor density 2.07

SECTION 10: Stability and reactivity

Reactivity	Formation of peroxides possible. Vapors may form explosive mixture with air. Reacts with air to form peroxides.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) . Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Condition to avoid	Warming.
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	LD50 Oral - Rat - 5.840 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h – 37.5 mg/l - vapor (OECD Test Guideline 403) LD50 Dermal - Rabbit - 12.800 mg/kg
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h
Serious eye damage/eye irritation	Eyes - Rabbit Result: Eye irritation
Respiratory or skin sensitization	Buehler Test - Guinea pig Result: negative
Germ cell mutagenicity	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 ovary cells Metabolic activation: with and without metabolic activation Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow

	Application Route: Intraperitoneal injection Result: negative
Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

Toxicity	
Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 9.640 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 13.299 mg/l - 48 h
Toxicity to bacteria	EC5 - Pseudomonas putida - 1.050 mg/l - 16 h
Toxicity to algae	IC50 - Desmodesmus subspicatus (green algae) - > 1.000 mg/l - 72 h
Persistence and degradability	aerobic - Exposure time 5 d Result: 53 % - Readily biodegradable. Theoretical oxygen demand 2.400 mg/g Ratio BOD/ThBOD 49 %
Biodegradability	Readily biodegradable.
Bio accumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
Mobility in soil	No data available
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.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

SECTION 13: Disposal considerations

Waste treatment methods Products	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.
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	1219	ISOPROPANOL	3	II	no
IMDG	1219	ISOPROPANOL	3	II	no
IATA	1219	Isopropanol	3	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.

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

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.