

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 Acetone
Product Number PSR44248 / PSR38230 / PSR46355 / PSR46209
Brand PureSynth Research Chemicals
CAS No. 67-64-1

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

Identified uses : Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company PureSynth Research Chemicals GmbH.
64683 Einhausen Marie-Curie-StraBe. 3, Germany

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

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H225

Highly flammable liquid and vapor.

H319

Causes serious eye irritation.

H336

May cause drowsiness or dizziness.

Precautionary statement(s)

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.
Supplemental Hazard Statements (EU)	
EUH066	Repeated exposure may cause skin dryness or cracking.

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
-	C ₃ H ₆ O	67-64-1
Component	Classification	Concentration
Acetone	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	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
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	Carbon dioxide (CO ₂) Foam Dry powder
Suitable extinguishing media	
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 vapors possible in the event of fire.
Advice for fire-fighters	Forms explosive mixtures with air at ambient temperatures. 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, and 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. 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	Avoid generation of vapors/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Preventive skin protection recommended. 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. 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	Components with workplace control parameters
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). Safety glasses.
Skin protection	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 EN374 please contact the supplier of CE-approved gloves. Full contact Material: butyl-rubber Minimum layer thickness: 0.7 mm Break through time: 480 min 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 EN374 please contact the supplier of CE-approved gloves.

Splash contact Material: Latex gloves

Minimum layer thickness: 0.6 mm

Break through time: 10 min

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to The used respiratory protection system. Recommended Filter type: Filter type AX.

The entrepreneur 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, clear Colour: Colorless
Odour	pungent, weakly aromatic
pH - Value	5 - 6 at 395 g/l at 20 °C
Density	0.791 g/cm ³ at 25 °C - lit.
Boiling Point	56 °C at 1.013 hPa - lit.
Melting Point	-94 °C - lit.
Solubility in water	soluble, in all proportions
Flash point	-17.0 °C - closed cup
Vapour pressure	245.3 hPa at 20,0 °C
Auto -ignition temperature	465.0 °C
Vapour density	No data available
Flammability (solid, gas)	No data available
Evaporation rate	No data available
Partition coefficient: n- octanol / water	No data available
Viscosity	No data available
Explosive properties	No data available
Upper / lower flammability or explosive limits	Upper explosion limit: 13 %(V) Lower explosion limit: 2 % (V)
Oxidizing properties	No data available

Other safety information:

Conductivity	0.01 µS/cm at 20 °C
Surface tension	23.2 mN/m at 20.0 °C

SECTION 10: Stability and reactivity

Reactivity	Vapors may form explosive mixture with air.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Risk of ignition or formation of inflammable gases or vapours with: chromosulfuric acid chromyl chloride ethanolamine Fluorine Strong oxidizing agents strong reducing agents Nitric acid Chromium (VI) oxide Risk of explosion with: non-metallic oxyhalides halogen-halogen compounds Chloroform nitrating acid nitrosyl compounds hydrogen peroxide halogen oxides organic nitro compounds peroxi compounds Exothermic reaction with: Bromine Alkali metals alkali hydroxides Halogenated hydrocarbon Sulfur dichloride phosphorous oxichloride
Condition to avoid	Warming.
Incompatible materials	rubber, various plastics
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	LD50 Oral - Rat - female - 5.800 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - 4 h - 76 mg/l Remarks: Unconsciousness Drowsiness Dizziness (External MSDS) LD50 Dermal - Rabbit - 20.000 mg/kg Remarks: (IUCLID)
Skin corrosion/irritation	Skin - Rabbit Result: Mild skin irritation - 24 h (Draize Test)
Serious eye damage/eye irritation	Eyes - Rabbit Result: Eye irritation - 24 h (Draize Test)
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: Not a skin sensitizer. Chronic exposure may cause dermatitis.
Germ cell mutagenicity	Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative 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: Mouse lymphoma test
	Metabolic activation: without metabolic activation
	Method: OECD Test Guideline 476
	Result: negative
Carcinogenicity	No data available.
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	Inhalation - May cause drowsiness or dizziness. - Narcotic effects
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	
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. RTECS: AL3150000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption: Headache Salivation Nausea Vomiting Dizziness narcosis Coma Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice. Kidney - Irregularities - Based on Human Evidence Skin - Dermatitis - Based on Human Evidence

SECTION 12: Ecological information

Toxicity

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 6.210 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test LC50 - Daphnia pulex (Water flea) - 8.800 mg/l - 48 h
Toxicity to algae	Remarks: (ECHA) static test NOEC - M.aeruginosa - 530 mg/l - 8 d Remarks: (maximum permissible toxic concentration)
Toxicity to bacteria	static test EC50 - activated sludge – 61.15 mg/l - 30 min
Persistence and degradability	aerobic - Exposure time 28 d Result: 91 % - Readily biodegradable. (OECD Test Guideline 301B)
Biochemical Oxygen Demand (BOD)	1.850 mg/g
Chemical Oxygen Demand (COD)	Remarks: (IUCLID) 2.070 mg/g
Theoretical oxygen demand	Remarks: (IUCLID) 2.200 mg/g
Bio accumulative potential	Remarks: (Lit.) Does not bioaccumulate
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 No data available
Products

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	1090	Acetone	3	II	No
IMDG	1090	Acetone	3	II	No
IATA	1090	Acetone	3	II	No

SECTION 15: Regulatory information

15.1 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

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : acetone

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. P5c Flammable liquids

15.2 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.