

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Revision date: 12/08/2025

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

### 1.1 Product identifiers

|                       |                                |
|-----------------------|--------------------------------|
| <b>Product name</b>   | Acetone                        |
| <b>Product Number</b> | PSR44248 / PSR38230 / PSR44977 |
| <b>Brand</b>          | PureSynth research chemicals   |
| <b>CAS No.</b>        | 67-64-1                        |

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

**Identified uses** : PurSolv

### 1.3 Details of the supplier of the safety data sheet

|                |                                                |
|----------------|------------------------------------------------|
| <b>Company</b> | 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), H225Eye  
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.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

| Common names & Synonyms | Mol. formula                                                                                            | CAS number    |
|-------------------------|---------------------------------------------------------------------------------------------------------|---------------|
| -                       | C <sub>3</sub> H <sub>6</sub> 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 <sub>2</sub> ) Foam Dry powder                                                                                                                             |
| Suitable extinguishing media                          | Carbon oxides Combustible.                                                                                                                                                    |
| Special hazards arising from the substance or mixture | Pay attention to flashback.<br>Vapors are heavier than air and may spread along floors.<br>Development of hazardous combustion gases or vapors possible in the event of fire. |

|                                 |                                                                                                                                                      |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Advice for fire-fighters</b> | Forms explosive mixtures with air at ambient temperatures.<br>In the event of fire, wear self-contained breathing apparatus.                         |
| <b>Further information</b>      | 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

|                                                                            |                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | 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. |
| <b>Environmental precautions</b>                                           | Do not let product enter drains. Risk of explosion.                                                                                                                                                                                                                                           |
| <b>Methods and materials for containment and cleaning up</b>               | 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.                                                                                        |
| <b>Reference to other sections</b>                                         | For disposal see section 13.                                                                                                                                                                                                                                                                  |

## SECTION 7: Handling and storage

|                                                                     |                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | 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. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.<br>Storage class (TRGS 510): 3: Flammable liquids                                                                                                                                             |
| <b>Specific end use(s)</b>                                          | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated                                                                                                                                                                                                                           |

## SECTION 8: Exposure controls / Personal protection

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control parameters</b>               | Components with workplace control parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Exposure controls</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Appropriate engineering controls</b> | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Personal protective equipment:</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Eye / face protection</b>            | 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.<br>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. |
| <b>Skin protection</b>                  | The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE 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**

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**

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

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

## SECTION 11: Toxicological information

|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acute toxicity</b>                                                       | LD50 Oral - Rat - female - 5.800 mg/kg Remarks: (ECHA)<br>LC50 Inhalation - Rat - 4 h - 76 mg/l Remarks: Unconsciousness<br>Drowsiness<br>Dizziness (External MSDS)                                                                                                                                                                                                                 |
| <b>Skin corrosion/irritation</b>                                            | LD50 Dermal - Rabbit - 20.000 mg/kg Remarks: (IUCLID)<br>Skin - Rabbit<br>Result: Mild skin irritation - 24 h(Draize Test)                                                                                                                                                                                                                                                          |
| <b>Serious eye damage/eye irritation</b>                                    | Eyes - Rabbit<br>Result: Eye irritation - 24 h (Draize Test)                                                                                                                                                                                                                                                                                                                        |
| <b>Respiratory or skin sensitization</b>                                    | Maximization Test - Guinea pig Result: Not a skin sensitizer.<br>Chronic exposure may cause dermatitis.<br>Test Type: Mutagenicity (mammal cell test): chromosome aberration.<br>Test system: Chinese hamster ovary cells<br>Metabolic activation: with and without metabolic activation Method:<br>Result: negative<br>Test Type: Ames test<br>Test system: Salmonella typhimurium |
| <b>Germ cell mutagenicity</b>                                               | Metabolic activation: with and without metabolic activation Method:<br>Result: negative<br>Test Type: In vitro mammalian cell gene mutation test Test system:<br>Mouse lymphoma test<br>Metabolic activation: without metabolic activation<br>Result: negative                                                                                                                      |
| <b>Carcinogenicity</b>                                                      | No data available.                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reproductive toxicity</b>                                                | No data available                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Specific target organ toxicity - single exposure</b>                     | Inhalation - May cause drowsiness or dizziness. - Narcotic effects                                                                                                                                                                                                                                                                                                                  |
| <b>Specific target organ toxicity - repeated exposure Aspiration hazard</b> | No data available                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Additional Information</b>                                               | RTECS: AL3150000<br>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  
Toxicity to daphnia and other aquatic invertebrates static test LC50 - Daphnia pulex (Water flea) - 8.800 mg/l - 48 h  
Remarks: (ECHA)  
Toxicity to algae 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  
aerobic - Exposure time 28 d

### Persistence and degradability

Result: 91 % - Readily biodegradable.  
(OECD Test Guideline 301B)

### Biochemical Oxygen

1.850 mg/g

### Demand (BOD)

Remarks: (IUCLID)

### Chemical Oxygen

2.070 mg/g

### Demand (COD)

Remarks: (IUCLID)

### Theoretical oxygen demand

2.200 mg/g

Remarks: (Lit.)

### Bio accumulative potential

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.

### 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 uncleaned 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 | 1090   | Acetone                 | 3                | II              | No               |
| IMDG      | 1090   | Acetone                 | 3                | II              | No               |
| IATA      | 1090   | Acetone                 | 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.

### **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.

### **Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

### **Chemical safety assessment**

For this product a chemical safety assessment was not 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.