

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 Diacetone Alcohol
Product Number PSR38507
Brand PureSynth research chemicals
CAS No. 123-42-2

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

Identified uses : Laboratory chemicals, Manufacture of substances

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 3), H226

Eye irritation (Category 2), H319

Reproductive toxicity (Category 2), H361fd

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

Warning

Hazard statement(s)

H226 Flammable liquid and vapor

H319 Causes serious eye irritation

H335 May cause respiratory irritation.

H336fd Suspected of damaging fertility. Suspected of damaging the unborn child

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat, hot surfaces, sparks, open flames and Other ignition sources. No smoking
P233	Keep container tightly closed.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308 + P313	IF exposed or concerned: Get medical advice/ attention
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
Diacetone alcohol	C ₆ H ₁₂ O ₂	123-42-2
Component	Classification	Concentration
2-Methyl-2-pentanol-4-one	Flam. Liq. 3; Eye Irrit. 2; Repr. 2; STOT SE 3; H226, H319, H361fd, H335 Concentration limits: >= 10 %: Eye Irrit. 2,H319;	<= 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. Consult a physician.
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	Foam Carbon dioxide (CO ₂) Dry powder
Suitable extinguishing media	Carbon oxides Combustible.
Special hazards arising from the substance or mixture	Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapors possible in the event of fire.
Advice for fire-fighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
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 carefully with liquid-absorbent material (e.g. Chemisorb®). 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	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	No data available
Exposure controls	No data available.
Appropriate engineering controls	

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.

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.

Skin protection

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

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds 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: light yellow
Odour	No data available
pH - Value	No data available
Density	0,931 g/cm ³ at 25 °C - lit.
Boiling Point	158 - 162 °C at 1.013,25 hPa
Melting Point	-44 °C
Solubility in water	No data available
Flash point	58 °C - closed cup
Vapour pressure	No data available
Auto -ignition temperature	No data available
Vapour density	4,01 - (Air = 1.0)
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: 6,9 %(V) Lower explosion limit: 1,8 %(V)
Oxidizing properties	No data available

Other safety information:

Relative vapour
density

4,01 - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity	Vapor/air-mixtures are explosive at intense warming.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions	No data available
Condition to avoid	Heating
Incompatible materials	various plastics, Strong oxidizing agents
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - 3.002 mg/kg (OECD Test Guideline 401) Symptoms: Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and Pneumonitis. Symptoms: mucosal irritations LD50 Dermal - Rabbit - 13.630 mg/kg Remarks: (IUCLID) Skin - Rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)
Skin corrosion/irritation	Remarks: (IUCLID) Drying-out effect resulting in rough and chapped skin. Dermatitis Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)
Serious eye damage/eye irritation	Remarks: (IUCLID) Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Maximization Test - Guinea pig
Respiratory or skin sensitization	Result: negative (OECD Test Guideline 406) Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
Germ cell mutagenicity	Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro

Carcinogenicity

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473 Result: negative

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

May cause respiratory irritation. - Respiratory Tract

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed

adverse effect level) - 600 mg/kg

RTECS: SA9100000

Central nervous system depression, Symptoms and signs include headache, dizziness,

Fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.,

Blood disorders, Dermatitis, Blurred vision, Effects due to ingestion may include:

To the best of our knowledge, the chemical, physical, and toxicological properties have not

Been thoroughly investigated.

After absorption of large quantities:

narcosis

respiratory arrest

Convulsions

Possible damages:

Damage to:

Liver

Kidney

Central nervous system

Handle in accordance with good industrial hygiene and safety practice.

Additional Information

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Oryzias latipes (Orange-red killifish) - > 100 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

semi-static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l

- 48 h semi-static test NOEC - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h (OECD Test Guideline 202)

(OECD Test Guideline 202)

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 1.000 mg/l - 72 h

Toxicity to algae

(OECD Test Guideline 201) static test NOEC - Pseudokirchneriella subcapitata (green algae) - >=

1.000 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - > 1.000 mg/l - 3 h

(OECD Test Guideline 209)

Persistence and degradability

No data available

Biodegradability	aerobic - Exposure time 28 d Result: 98, 51 % - Readily biodegradable. (OECD Test Guideline 301A)
Bio accumulative potential	No data available
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	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	-	-	-	-	-
IMDG	1148	DIACETONE ALCOHOL	3	III	No
IATA	1148	Diacetone alcohol	3	III	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. : FLAMMABLE LIQUIDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or Stricter national regulations where applicable.
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.