

Solution of Acetic Anhydride in Acetonitrile

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 8/28/2015 Revision date: 12/12/2023 Supersedes version of: 7/13/2023 Version: 2.2

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

1.1. Product identifier

Product form	: Mixture
Trade name	: Solution of Acetic Anhydride in Acetonitrile
UFI	: YUT2-X0V7-S006-HN8D
Product code	: NC-0806
Type of product	: Synthesis Reagent
Product group	: End product

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

1.2.1. Relevant identified uses

Main use category	: Professional use, Laboratory chemical
Industrial/Professional use spec	: Industrial For professional use only
Use of the substance/mixture	: Laboratory chemicals Substance manufacture
Function or use category	: Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

emp Biotech GmbH GmbH
Robert-Rössle-Str. 10
DE 13125 Berlin
Deutschland
T +49 (0)30 94 89 22 01 (Monday-Friday, 9:00 am-5:00 pm), F +49 (0)30 94 89 32 01
info@empbiotech.com, www.empbiotech.com

1.4. Emergency telephone number

Emergency number	: Giftnotruf Berlin +49 30 30686700 (Beratung in Deutsch), 24 Stunden, 7 Tage/Woche; International: INFOTRAC +1-352-323-3500 (Phone) or in the US 800-535-5053 (toll-free), 24 hours/day, 7 days/week
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Dermal)	H312
Acute Tox. 2 (Inhalation)	H330
Skin Corr. 1B	H314
STOT SE 3	H335

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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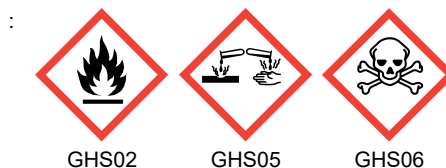
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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : H225 - Highly flammable liquid and vapour.
H302+H312 - Harmful if swallowed or in contact with skin.
H314 - Causes severe skin burns and eye damage.
H330 - Fatal if inhaled.
H335 - May cause respiratory irritation.
- : P210 - Keep away from heat, hot surfaces, sparks, open flames. – No smoking.
P280 - Wear protective clothing, protective gloves, eye protection, face shield.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

Other hazards which do not result in classification : This substance / mixture does not contain any components of 0.1% or higher that are either classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acetonitrile (Anhydrous)	CAS-No.: 75-05-8 EC-No.: 200-835-2 EC Index-No.: 608-001-00-3 REACH-no: 01-2119471307-38-XXXX	50 – 70	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319
Acetic anhydride	CAS-No.: 108-24-7 EC-No.: 203-564-8 EC Index-No.: 607-008-00-9 REACH-no: 01-2119486470-36	30 – 50	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Acetic anhydride	CAS-No.: 108-24-7 EC-No.: 203-564-8 EC Index-No.: 607-008-00-9 REACH-no: 01-2119486470-36	(1 ≤ C < 5) Eye Irrit. 2, H319 (5 ≤ C < 25) Skin Irrit. 2, H315 (5 ≤ C < 25) Eye Dam. 1, H318 (5 ≤ C < 100) STOT SE 3, H335 (25 ≤ C < 100) Skin Corr. 1B, H314

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Consult a doctor. Show this safety data sheet to the doctor in attendance.
First-aid measures after inhalation	: Move person to fresh air and ensure comfortable breathing. If breathing stops: immediately apply artificial respiration, if necessary also oxygen. . Get immediate medical advice/attention.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Rinse skin with water/shower. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Get immediate medical advice/attention. Remove contact lenses, if possible. Continue rinsing.
First-aid measures after ingestion	: Drink water immediately (max. 2 cups). Do not induce vomiting. Get immediate medical advice/attention. No attempts at neutralization.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: The most important known symptoms and effects are described on the label (see 2.2) and / or in section 11.
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4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide.
Unsuitable extinguishing media	: There are no extinguishing agent restrictions for this substance.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible.
Explosion hazard	: 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.
Hazardous decomposition products in case of fire	: Nitrogen oxides. Carbon oxides. Be careful, the product may re-ignite.

5.3. Advice for firefighters

Protection during firefighting	: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Other information	: Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : For personal protection see section 8.
- Emergency procedures : Avoid breathing vapours, mist, gas, spray. Avoid substance contact. Ensure adequate ventilation, observe emergency procedures, consult an expert. Keep away from heat and sources of ignition.

6.1.2. For emergency responders

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not allow to enter drains or water courses. Be careful of explosion risk.

6.3. Methods and material for containment and cleaning up

- Methods for 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. Chemizorb®). Dispose of properly. Clean up affected area.

6.4. Reference to other sections

Information on exposure controls/personal protective equipment and on Instructions for disposal can be found in sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Use under laboratory 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.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothes.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed in a dry, well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.
- Storage temperature : 5 – 20 °C
- Storage area : Storage class (TRGS 510): See section 15.1.2.

7.3. 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

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Acetic anhydride (108-24-7)

Germany - Occupational Exposure Limits (TRGS 900)

AGW (OEL TWA)	0.42 mg/m ³
	0.1 ppm Remarks: A risk of fetal damage need not be feared if the workplace limit value (AGW) and the biological limit value (BGW) are observed.

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Acetonitrile (Anhydrous) (75-05-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetonitrile
IOEL TWA	70 mg/m ³
	40 ppm Indicative: Indicates the possibility of significant absorption of the substance through the skin.
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Acetonitril
AGW (OEL TWA)	17 mg/m ³
	10 ppm Remark: Skin resorptive: There is no reason to fear a risk of damage to the developing embryo or foetus when AGW and BGW are adhered to. Source: DFG, EU

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

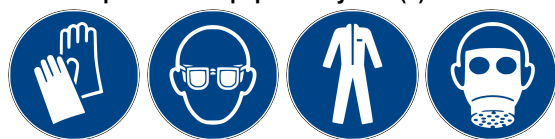
8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Wear eye protection. Safety glasses. EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Flame retardant antistatic protective clothing

Hand protection:

Wear protective gloves. 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. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

. Full contact-Material: butyl-rubber

Minimum layer thickness: 0,7 mm

Break through time: 480 min. Splash contact-material: Chloroprene

Minimum layer thickness: 0,65 mm

Break through time: > 30 min

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8.2.2.3. Respiratory protection

Respiratory protection:

Wear 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 ABEK.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Do not let product enter drains. Risk of explosion. Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Clear.
Odour	: Ether-like.
Odour threshold	: Not available
Melting point	: -48 °C
Freezing point	: Not available
Boiling point	: 81 – 82 °C at 1013 hPa (Main component)
Flammability	: Not available
Explosive properties	: product does not present an explosion hazard.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 2 °C - closed cup. (Main component)
Auto-ignition temperature	: 525 °C (Main component)
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Completely soluble with water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: -0.539 at 25 °C (Main component)
Vapour pressure	: 121.44 hPa at 25 °C (Main component)
Vapour pressure at 50°C	: Not available
Density	: 0.78 g/cm³ at 20 °C (Main component)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Relative gas density	: 1.42 Ratio of the density to dry air at the same temperature and pressure.
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors can form an explosive mixture with air.

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10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

High temperature. heat. Direct sunlight.

10.5. Incompatible materials

Bases, Oxidizing agents, Alkali metals, Reducing agents, Acids.

10.6. Hazardous decomposition products

In the event of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Fatal if inhaled.
Additional information	: Acetonitrile: LD50 Oral - Mouse - male and female: 617 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Mouse - male and female - 4 h: 6,022 mg/l (OECD Test Guideline 403) Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acetic anhydride: LD50 Oral - Rat - male and female: 630 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - male: 4 h - 1,67 mg/l Remarks: (OECD Test Guideline 412) (ECHA) Dermal: No data available

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ATE CLP (oral)	500 mg/kg bodyweight
ATE CLP (dermal)	1100 mg/kg bodyweight
ATE CLP (gases)	100 ppmv/4h
ATE CLP (vapours)	0.5 mg/l/4h
ATE CLP (dust,mist)	0.05 mg/l/4h

Acetic anhydride (108-24-7)

LD50 oral rat	1780 mg/kg - AMA Archives of Industrial Hygiene and Occupational Medicine. Vol. 4, Pg. 119, 1951.
LD50 dermal rabbit	4290 mg/kg - Union Carbide Data Sheet. Vol. 8/7/1963.
LC50 Inhalation - Rat	4.18 mg/l/4h - Toxicology of Drugs and Chemicals, Deichmann, W.B., New York, Academic Press, Inc., 1969Vol. -, Pg. 607, 1969.

Acetonitrile (Anhydrous) (75-05-8)

LD50 oral rat	2460 mg/kg - Union Carbide Data Sheet. Vol. 3/18/1965.
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Acetonitrile (Anhydrous) (75-05-8)	
LD50 dermal rabbit	> 2000 mg/kg - International Journal of Toxicology. Vol. 19, Pg. 363, 2000.
Skin corrosion/irritation	: Causes severe skin burns.
Additional information	: Acetonitrile: Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Acetic anhydride: Skin - in vitro test: Result: Causes burns. - 4 h Remarks: (ECHA)
Acetic anhydride (108-24-7)	
pH	≈ 3 at 20 °C; 10 g/l
Serious eye damage/irritation	: Assumed to cause serious eye damage
Additional information	: Acetonitrile: Eyes - Rabbit Result: Causes serious eye irritation. (OECD Test Guideline 405) Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acetic anhydride: Eyes - Rat Result: Corrosive - 24 h Remarks: (ECHA)
Acetic anhydride (108-24-7)	
pH	≈ 3 at 20 °C; 10 g/l
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Additional information	: Acetonitrile: Test system: Saccharomyces cerevisiae Result: positive Remarks: Cytogenetic analysis (ECHA)
Carcinogenicity	: Not classified (Acetonitrile: No evidence of carcinogenicity in animal studies.)
Solution of Acetic Anhydride in Acetonitrile	
IARC group	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Acetic anhydride (108-24-7)	
Viscosity, kinematic	0.778 mm²/s
Acetonitrile (Anhydrous) (75-05-8)	
Viscosity, kinematic	0.405 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by 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.
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11.2.2. Other information

Potential adverse human health effects and symptoms

: Treat as cyanide poisoning. Always have on hand a cyanide first-aid kit, together with proper instructions. The onset of symptoms is generally delayed pending conversion to cyanide. Nausea, Vomiting, Diarrhea, Headache, Dizziness, Rash, Cyanosis, excitement, depression, Drowsiness, impaired judgment, Lack of coordination, stupor, death ,Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Other information

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

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Acetic anhydride (108-24-7)	
LC50 - Fish [1]	> 300.82 mg/l Semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 96 h (OECD Test Guideline 203) Remarks: (in analogy to similar products)
EC50 - Crustacea [1]	> 1000 mg/l Static test EC50 - Daphnia magna (Water flea) - 48 h (OECD Test Guideline 202)
ErC50 algae	> 300.82 mg/l Static test ErC50 - Skeletonema costatum - 72 h (ISO 10253)

Acetonitrile (Anhydrous) (75-05-8)	
LC50 - Fish [1]	1640 mg/l - Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984. Acute Toxicities of Organic Chemicals to Fathead Minnows(Pimephales promelas), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI :414
EC50 - Crustacea [1]	3600 mg/l - Tong, Z., Z. Huailan, and J. Hongjun 1996. Chronic Toxicityof Acrylonitrile and Acetonitrile to Daphnia magna in 14-d and 21-d Toxicity Tests. Bull.Environ.Contam.Toxicol. 57(4):655-659

12.2. Persistence and degradability

Solution of Acetic Anhydride in Acetonitrile	
Persistence and degradability	Not established.
Acetic anhydride (108-24-7)	
Persistence and degradability	Rapidly degradable
Biodegradation	> 95 % Zahn-Wellens Test - Exposure time 5 d Result: Readily biodegradable. (OECD Test Guideline 302B)
Acetonitrile (Anhydrous) (75-05-8)	
Persistence and degradability	Rapidly degradable
Biodegradation	70 % - Result: Readily biodegradable. (OECD Test Guideline 310)

12.3. Bioaccumulative potential

Solution of Acetic Anhydride in Acetonitrile	
Partition coefficient n-octanol/water (Log Pow)	-0.539 at 25 °C (Main component)

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Bioaccumulative potential	Not established.
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Acetic anhydride (108-24-7)

Partition coefficient n-octanol/water (Log Pow)	≈ -0.5 Bioaccumulation is not expected.
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Bioaccumulative potential	No bioaccumulation is to be expected (log Pow ≤ 4).
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Acetonitrile (Anhydrous) (75-05-8)

Partition coefficient n-octanol/water (Log Pow)	-0.34
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Bioaccumulative potential	No bioaccumulation is to be expected (log Pow ≤ 4).
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12.4. Mobility in soil

Acetonitrile (Anhydrous) (75-05-8)

Mobility in soil	Not expected to adsorb on soil.
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12.5. Results of PBT and vPvB assessment

Solution of Acetic Anhydride in Acetonitrile

Results of PBT assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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12.6. Endocrine disrupting properties

Adverse effects on the environment caused by 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.

12.7. Other adverse effects

Acetonitrile : Toxicity to fish:
Flow-through test LC50 - Pimephales promelas (fathead minnow): 1.640 mg/l - 96 h
Remarks: (ECHA)
Toxicity to algae:
Static test NOEC - Phaeodactylum tricornutum: 400 mg/l - 72 h
Remarks: (ISO 10253)
Static test ErC50 - Phaeodactylum tricornutum: 9.696 mg/l - 72 h
Remarks: (ISO 10253)

Acetic anhydride : Toxicity to fish :
Semi-static test: LC50 - Oncorhynchus mykiss (rainbow trout): > 300,82 mg/l - 96 h
Remarks: (OECD Test Guideline 203)
(in analogy to similar products)
Toxicity to daphnia and other aquatic invertebrates:
Static test: EC50 - Daphnia magna (Water flea): > 1.000 mg/l - 48 h
Remarks: (OECD Test Guideline 202)
Toxicity to algae:
Static test: ErC50 - Skeletonema costatum: > 300,82 mg/l - 72 h
Remarks: (ISO 10253)
Toxicity to bacteria:
Static test: NOEC - Pseudomonas putida: 1.150 mg/l - 16 h
Remarks: (ECHA)

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods : Product residues are to be disposed of in compliance with national and regional regulations dispose. Keep chemicals in original containers. Not with other waste mix. Uncleaned containers are to be treated according to the product. Pay attention to the waste policy 2008/98/EG.
- Product/Packaging disposal recommendations : Contaminated packaging to be disposed as unused product.
- Ecological information : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
UN 2924	UN 2924	UN 2924
14.2. UN proper shipping name		
FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Solution of Acetic Anhydride in Acetonitrile)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Solution of Acetic Anhydride in Acetonitrile)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Solution of Acetic Anhydride in Acetonitrile)
14.3. Transport hazard class(es)		
3 (8)	3 (8)	3 (8)
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information	: REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	: Acetic anhydride
	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

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Employment restrictions	: Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	: WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
WGK remark	: internal company classification.
Storage class (LGK, TRGS 510)	: LGK 3 - Flammable liquids.
Chemicals Prohibition Ordinance (ChemVerbotsV)	: This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Solution of Acetic Anhydride in Acetonitrile

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

15.2. Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.