

Dissolution Buffer

Print date 28.08.2023
Revision date 25.08.2023
Version 1.0 (en,US)

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

1.1 Product identifier

Trade name/designation Dissolution Buffer
UFI NTH5-J0UY-H00F-HSDJ

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

Use of the substance/mixture
Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Supplier

Biognosys AG
Wagistrasse 21
CH-8952 Schlieren
Telephone +41 44 7382040
Website <https://biognosys.com/>

Department responsible for information:
Telephone +41 44 7382040

Manufacturer

1.4 Emergency telephone number

GBK-EMTEL International +49(0)6132/84463 (all languages)
England, Wales and Scotland dial: 111; Republic of Ireland dial:
01 809 2166

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Eye Irrit. 2, H319

Hazard statements for health hazards

H319 Causes serious eye irritation.

Remark

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2 Label elements

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

Hazard pictograms



GHS07

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Signal word

Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P337 + P313 If eye irritation persists: Get medical advice/attention.

P280 Wear face protection.

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

Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
75-05-8	200-835-2	acetonitrile	15 < 25 weight-%	Flam. Liq. 2; H225 Acute Tox. 4 ; H332 Acute Tox. 4 ; H312 Acute Tox. 4 ; H302 Eye Irrit. 2; H319	ATE(oral): 617 mg/kg ATE(inhalation vapour): 6022 mg/L

REACH No.	Substance name
01-2119471307-38-XXXX	acetonitrile

Remark

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

In case of accident or if you feel unwell, seek medical advice (if possible, show operating instructions or safety data sheet).

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Following inhalation

Remove casualty to fresh air and keep warm and at rest.

In the event of symptoms refer for medical treatment.

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Following skin contact

Wash immediately with:
Water
In case of skin reactions, consult a physician.

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses.
Consult an ophthalmologist.

Following ingestion

Do NOT induce vomiting.
Rinse mouth thoroughly with water.
Let water be drunk in little sips (dilution effect).
In the event of symptoms seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Special treatment

Acetonitrile: 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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam
Dry extinguishing powder
Carbon dioxide (CO₂)
Water spray jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In the case of thermal decomposition formation of dangerous gases possible.
Carbon monoxide
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)
In a low-oxygen atmosphere of hydrogen cyanide (HCN) may occur.
Vapors are heavier than air and spread along ground. Inflammation over longer distances possible.

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.
Protective clothing.

Additional information

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Down fumes resulting from fire with water spray.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid skin and eye contact.
Do not breathe vapors.
Do not breathe aerosols.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.
If the product contaminates soil, waterways or drains inform the corresponding authorities.

6.3 Methods and material for containment and cleaning up

For containment

Ensure adequate ventilation.
Suitable material for taking up:
Universal binder
Flush away residues with water.
After taking up the material dispose according to regulation.

6.4 Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
Usual measures for fire prevention.
Avoid:
Inhalation of vapours or spray/mists
Eye contact
Skin contact

Advices on general occupational hygiene

Thorough skin-cleansing after handling the product.
Apply skin care products after work.
Make available sufficient washing facilities
When using do not eat, drink, smoke, sniff.
Remove contaminated, saturated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.
Keep container tightly closed.

Storage class

10 Combustible liquids that cannot be assigned to any of the above storage classes

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Materials to avoid

Do not store together with:
 Food and feedingstuffs

Further information on storage conditions

Keep container dry and store at a cool place.

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
75-05-8	200-835-2	Acetonitrile	40 [ml/m ³ (ppm)] 70 [mg/m ³] skin resorptive 2006/15/EC

DNEL worker

CAS No.	Substance name	DNEL value	DNEL type	Remark
75-05-8	acetonitrile	32.2 mg/kg bw/day	long-term dermal (systemic)	
75-05-8	acetonitrile	68 mg/m ³	long-term inhalative (local)	
75-05-8	acetonitrile	68 mg/m ³	acute inhalative (systemic)	
75-05-8	acetonitrile	68 mg/m ³	acute inhalative (local)	
75-05-8	acetonitrile	68 mg/m ³	long-term inhalative (systemic)	

DNEL Consumer

CAS No.	Substance name	DNEL value	DNEL type	Remark
75-05-8	acetonitrile	220 mg/m ³	acute inhalative (local)	
75-05-8	acetonitrile	22 mg/m ³	acute inhalative (systemic)	
75-05-8	acetonitrile	4.8 mg/m ³	long-term inhalative (systemic)	

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
75-05-8	acetonitrile	1 mg/L	aquatic, marine water	
75-05-8	acetonitrile	2.41 mg/kg	soil	
75-05-8	acetonitrile	7.53 mg/kg	sediment, freshwater	
75-05-8	acetonitrile	10 mg/L	aquatic, freshwater	
75-05-8	acetonitrile	32 mg/L	sewage treatment plant (STP)	
75-05-8	acetonitrile	10 mg/L	aquatic, freshwater	

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8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure

Ensure good ventilation, where necessary use fume hood.

Personal protection equipment

Eye/face protection

Suitable eye protection:

Eye glasses

For eye protection, use only equipment that has been tested and approved to regulatory standards such as NIOSH (US) or EN 166 (EU).

Hand protection

The selection of the suitable gloves does not only depend on different material, but also on further marks of quality and varies from manufacturer to manufacturer.

Suitable gloves type

Butyl caoutchouc (butyl rubber)

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance and must therefore be checked before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

The selected protective gloves have to comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374.

Body protection:

Protective clothing

Respiratory protection

Respirators and components must be tested and approved to appropriate government standards such as NIOSH (US) or CEN (EU).

If aerosols / vapors occur, use respiratory protection.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

colourless

Odour

characteristic

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	not determined		
flammability	not determined		

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	Value	Method	Source, Remark
Lower and upper explosion limit	Lower explosion limit 4.4 Vol-%		CAS No.75-05-8 acetonitrile
Lower and upper explosion limit	Upper explosion limit 16 Vol-%		CAS No.75-05-8 acetonitrile
Flash point	not determined		
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	not determined		
Viscosity	not determined		
Solubility(ies)	Water solubility		completely miscible
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	not determined		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Oxidising agent
Violent reaction with:
Nitric acid
Nitrogen oxides (NOx)
Catalyst
Acid
Alkali (lye)
Reducing agent, strong
Explosive reaction with:
nitrates
perchlorates
Perchloric acid
Sulphuric acid, concentrated

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10.6 Hazardous decomposition products

Concerning possible decomposition products see section 5.

SECTION 11: Toxicological information

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

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	CAS No.75-05-8 acetonitrile LD50: 617 mg/kg Species Mouse	OECD 401	
Acute dermal toxicity	not determined		
Acute inhalation toxicity	CAS No.75-05-8 acetonitrile Acute inhalation toxicity (vapour) LC50: 6022 mg/L Species Mouse Exposure time 4 h		

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
CAS No.75-05-8 acetonitrile No irritant effect known.Species Rabbit Exposure time 4 h	OECD 404	

Assessment/classification

No irritant effect known.

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
CAS No.75-05-8 acetonitrile strongly irritant.Species Rabbit	OECD 405	

Assessment/classification

Irritant.

Sensitisation to the respiratory tract

Assessment/classification

No sensitizing effects known.

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.	CAS No.75-05-8 acetonitrile Species Guinea pig	Buehler-Test	

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Germ cell mutagenicity

	Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genotoxicity	CAS No.75-05-8 acetonitrile Species Salmonella typhimurium	Ames-Test	negative.	

Carcinogenicity

Other information

IARC: No component of this product present at a concentration equal to or greater than 0.1% is identified by IARC as a probable, possible or established human carcinogen.

Reproductive toxicity

Assessment/classification

No indications of reproductive toxic effects.

STOT-single exposure

STOT SE 1 and 2

Assessment/classification

Not classified

STOT SE 3

Irritation to respiratory tract

Assessment/classification

Not classified

Narcotic effects

Assessment/classification

Not classified

STOT-repeated exposure

not determined

Aspiration hazard

Remark

No danger of aspiration according to CLP Regulation.

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			Based on available data, the classification criteria are not met.

Other information

The product should be handled with the care usual when dealing with chemicals.
Further hazardous properties can not be excluded.
RTECS: AL7700000 (Acetonitrile)

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No.75-05-8 acetonitrile LC50: 1640 mg/L Species Pimephales promelas (fathead minnow) Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	not determined		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No.75-05-8 acetonitrile ErC50: 9696 mg/L Test duration 72 h	ISO 10253	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

Assessment/classification

Biodegradable.

12.3 Bioaccumulative potential

Assessment/classification

Accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			Based on available data, the classification criteria are not met.

12.7 Other adverse effects

Additional ecotoxicological information

Additional information

Ecological data for the mixture are not available.
Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Disposal in accordance with local regulations.

Remark

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	-	-	-
14.6 Special precautions for user	No data available		
14.7 Maritime transport in bulk according to IMO instruments	No data available		
All transport carriers	No dangerous good in sense of these transport regulations.		

SECTION 15: Regulatory information

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

No data available

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Indication of changes

* Data changed compared with the previous version

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Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Flam. Liq. 2: Flammable Liquids, Category 2

Eye Irrit. 2: Eye irritation, Category 2

Acute Tox. 4, H302: Acute Toxicity (oral), Category 4

Acute Tox. 4, H312: Acute toxicity (dermal), Category 4

Acute Tox. 4, H332: Acute Toxicity (inhalation), Category 4

CLP: Classification, Labelling and Packaging

ECHA: European Chemicals Agency

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

REACH: Registration, Evaluation and Authorization of Chemicals

SCL: Specific concentration limit

PNEC: Predicted No Effect Concentration

DNEL: derived no-effect level

ATE: Acute Toxicity Estimate

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

PBT: persistent and bioaccumulative and toxic

vPvB: very persistent, very bioaccumulative

SVHC: Substance of Very High Concern

WGK: water hazard class

See overview table at www.euphrac.eu

Key literature references and sources for data

Data sheets of the sub-supplier.

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The classification of the mixture was carried out following the calculation method according to the CLP Regulation (1272/2008).

Additional information

National and local regulations concerning chemicals shall be observed.

The national special regulations must be implemented by each user on his own responsibility!

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Please observe the following disclaimer! Our safety data sheets have been compiled according to effective EU directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.