

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 02/08/2023 Revision date: 26/10/2023 Version: 1.1

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

#### 1.1. Product identifier

Product form : Mixture

Product name : ZipChip Peptides BGE

## 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

Use of the substance/mixture : For research and development use only.

Function or use category : Laboratory chemicals

1.2.2. Uses advised against

Restrictions on use : Not for use in diagnostic procedures.

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

#### Manufacturer

908 Devices 645 Summer St 02210 Boston, MA USA

T 1 (857) 254 - 1500 <u>908devices.com</u>

#### 1.4. Emergency telephone number

Emergency number : 1 (844) 908 - 4357

## **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
Eye Irrit. 2 H319
Full text of hazard classes, H- and EUH-statements: see section 16

## Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP) :





GHS02

GHS07

Signal word (CLP) : Danger

Contains : Acetonitrile; Formic acid

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P240 - Ground and bond container and receiving equipment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

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protection.

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

P403+P235 - Store in a well-ventilated place. Keep cool.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

Contains no PBT/vPvB substances ≥ 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 substance with national workplace exposure limit(s) (BE, DK, FR, DE, IT, NL); substance with a Community workplace exposure limit	CAS-No.: 75-05-8 EC-No.: 200-835-2 EC Index-No.: 608-001-00-3	< 50	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=11 mg/l/4h) Acute Tox. 4 (Inhalation:vapour), H332 (ATE=11 mg/l/4h) Eye Irrit. 2, H319
Formic acid substance with national workplace exposure limit(s) (BE, DK, FR, DE, IT, NL); substance with a Community workplace exposure limit (Note B)	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0	< 2	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=1100 mg/kg bodyweight) Acute Tox. 3 (Inhalation:vapour), H331 (ATE=7,85 mg/l/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
Formic acid	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0	$(2 \le C < 10)$ Skin Irrit. 2, H315 $(2 \le C < 10)$ Eye Irrit. 2, H319 $(10 \le C < 90)$ Skin Corr. 1B, H314 $(90 \le C < 100)$ Skin Corr. 1A, H314

Note B:

Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: '... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

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

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#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable

for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower. Wash clothing before re-using. Get medical attention if irritation develops and

persists.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice/attention.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if

you feel unwell. Never give anything by mouth to an unconscious person.

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

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking

and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/effects after ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Symptoms/effects after eye contact

Suitable extinguishing media : Dry chemical powder. Alcohol resistant foam. Carbon dioxide (CO2).
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Products of combustion may include, and are not

limited to: oxides of carbon. Nitrogen oxides. Hydrogen cyanide. Toxic vapours. Irritating

vapours.

Explosion hazard : May form flammable/explosive vapour-air mixture. Heavier than air, vapours may travel long

distances along ground, ignite and flash back to source.

## 5.3. Advice for firefighters

Firefighting instructions : Move containers away from the fire area if this can be done without risk. Cool closed

containers exposed to fire with water spray. Prevent runoff from entering water courses,

sewers and basements.

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry

to unnecessary and unprotected personnel. Use special care to avoid static electric

charges. Remove all sources of ignition.

## 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

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## 6.2. Environmental precautions

Prevent entry to sewers and public waters.

## 6.3. Methods and material for containment and cleaning up

For containment

: Stop leak if safe to do so. Remove ignition sources. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up

: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Additional hazards when processed

- : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling
- : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-

sparking tools. Use only outdoors or in a well-ventilated area.

Hygiene measures

: Take off immediately all contaminated clothing and wash it before reuse. Wash hands,

forearms and face thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures

- : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions Keep out of the reach of children. Keep container tightly closed. Do not store in unlabelled containers. Store in dry, well-ventilated area. Keep cool. Keep out of direct sunlight. Containers which are opened should be properly resealed and kept upright to prevent

leakage. Protect from physical damage. Store locked up.

#### 7.3. Specific end use(s)

Not available.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Acetonitrile (75-05-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	70 mg/m³	
IOEL TWA [ppm]	40 ppm	
Remark	Possibility of significant uptake through the skin	
Belgium - Occupational Exposure Limits		
OEL TWA	34 mg/m³	
OEL TWA	20 ppm	
OEL chemical category	Skin, Skin notation	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	70 mg/m³	

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Acetonitrile (75-05-8)		
OEL TWA [2]	40 ppm	
OEL STEL	140 mg/m³	
OEL STEL	80 ppm	
OEL chemical category	Potential for cutaneous absorption	
France - Occupational Exposure Limits		
VME (OEL TWA)	70 mg/m³ (restrictive limit)	
VME (OEL TWA) [ppm]	40 ppm (restrictive limit)	
OEL chemical category	Risk of cutaneous absorption	
Germany - Occupational Exposure Limits (TRGS 90	0)	
AGW (OEL TWA) [1]	17 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
AGW (OEL TWA) [2]	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
Chemical category	Skin notation	
Italy - Occupational Exposure Limits		
OEL TWA	35 mg/m³	
OEL TWA	20 ppm	
OEL chemical category	skin - potential for cutaneous absorption	
Netherlands - Occupational Exposure Limits		
TGG-8u (OEL TWA)	34 mg/m³	
TGG-8u (OEL TWA) [ppm]	20 ppm	
Formic acid (64-18-6)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	9 mg/m³	
IOEL TWA [ppm]	5 ppm	
Belgium - Occupational Exposure Limits		
OEL TWA	9,5 mg/m³	
OEL TWA	5 ppm	
OEL STEL	19 mg/m³	
OEL STEL	10 ppm	
Denmark - Occupational Exposure Limits		
OEL TWA [1]	9 mg/m³	
OEL TWA [2]	5 ppm	
OEL STEL	18 mg/m³	
OEL STEL	10 ppm	
France - Occupational Exposure Limits		
VME (OEL TWA)	9 mg/m³ (indicative limit)	
VME (OEL TWA) [ppm]	5 ppm (indicative limit)	

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Formic acid (64-18-6)		
Germany - Occupational Exposure Limits (TRGS 900)		
AGW (OEL TWA) [1]	9,5 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
AGW (OEL TWA) [2]	5 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)	
Italy - Occupational Exposure Limits		
OEL TWA	9 mg/m³	
OEL TWA	5 ppm	
Netherlands - Occupational Exposure Limits		
TGG-15min (OEL STEL)	5 mg/m³	
TGG-15min (OEL STEL) [ppm]	2,7 ppm	

#### 8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Consult the relevant monitoring standards for the region.

#### 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:

Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

#### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

#### Eye protection:

Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

## 8.2.2.2. Skin protection

#### Skin and body protection:

Chemical resistant apron. Flame retardant and anti-static material recommended.

## Hand protection:

Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent)

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

Not required for normal conditions of use.

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#### 8.2.3. Environmental exposure controls

#### **Environmental exposure controls:**

Avoid release to the environment.

#### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

Transparent.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Not available
Odour : Pungent.
Odour threshold : Not available
Melting point : Not available
Freezing point : Not available
Boiling point : 81 °C (177.8 °F)

Flammability : Highly flammable liquid and vapour.

Auto-ignition temperature : Refer to component values below

Decomposition temperature : Not available

pH : 2,2

Viscosity, kinematic : Not available Solubility : Water: 100 % Partition coefficient n-octanol/water (Log Kow) : Not available

Vapour pressure : Refer to component values below

Vapour pressure at 50°C : Not available
Density : Not available
Relative density : Not available
Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

Acetonitrile (75-05-8)	
Boiling point	81,6 °C (at 1013.25 hPa)
Flash point	6 °C (open cup)
Auto-ignition temperature	524 °C
Vapour pressure	94,51 – 98,64 hPa (at 20 °C)

Formic acid (64-18-6)	
Boiling point	100,23 °C (at 1013.25 hPa)
Flash point	46,5 °C (closed cup)
Auto-ignition temperature	539 °C
Vapour pressure	170,7 hPa (at 50 °C)

## 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

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## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

## 10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapour-air mixture.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

## 10.4. Conditions to avoid

Heat. Sparks. open flames. Incompatible materials. Sources of ignition. Direct sunlight.

#### 10.5. Incompatible materials

Germ cell mutagenicity

Additional information Carcinogenicity

Additional information

Strong acids. Strong bases. Strong oxidizers. Halogenated compounds. Perchlorates. Sulfites.

## 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Nitrogen oxides. Hydrogen cyanide. May release flammable gases.

## **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) : Not classified.

Acute toxicity (inhalation) : Not classified

Acute toxicity (inhalation)	: Not classified.
ZipChip Peptides BGE	
ATE CLP (oral)	318,149 mg/kg bodyweight
Acetonitrile (75-05-8)	
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	26,8 mg/l/4h
Formic acid (64-18-6)	
LD50 oral rat	1100 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	7,85 mg/l/4h
Skin corrosion/irritation	: Not classified. pH: 2,2
Additional information	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Causes serious eye irritation. pH: 2,2
Respiratory or skin sensitisation	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.

: Not classified.

: Based on available data, the classification criteria are not met.

: Based on available data, the classification criteria are not met.

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Formic acid (64-18-6)	
NOAEL (chronic, oral, animal/male, 2 years)	400 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)
Reproductive toxicity	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.
Acetonitrile (75-05-8)	
NOAEC (inhalation, rat, gas, 90 days)	400 ppm Animal: rat, Guideline: other:
Formic acid (64-18-6)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0,244 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity 90-Day Study)
Aspiration hazard	: Not classified.
Additional information	: Based on available data, the classification criteria are not met.

## 11.2. Information on other hazards

## 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: 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 %

#### 11.2.2. Other information

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Ecology - general

: May cause long-term adverse effects in the aquatic environment.

Hazardous to the aquatic environment, short–term (acute)

: Not classified.

Hazardous to the aquatic environment, long–term

: Not classified.

(chronic)

(ornorino)	
Acetonitrile (75-05-8)	
LC50 - Fish [1]	1600 – 1690 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 - Fish [2]	1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	> 1000 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	3560 mg/l Test organisms (species): Phaeodactylum tricornutum
EC50 72h - Algae [2]	9696 mg/l Test organisms (species): Phaeodactylum tricornutum
LOEC (chronic)	> 960 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	960 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

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Acetonitrile (75-05-8)	
NOEC chronic fish	102 mg/l Test organisms (species): Oryzias latipes Duration: '21 d'
Formic acid (64-18-6)	
LC50 - Fish [1]	130 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	120 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	138 – 165,6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 72h - Algae [1]	26,9 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	25 mg/l (Species: Desmodesmus subspicatus)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

## 12.2. Persistence and degradability

ZipChip Peptides BGE	
Persistence and degradability	Not established.

## 12.3. Bioaccumulative potential

ZipChip Peptides BGE		
Bioaccumulative potential	Not established.	
Acetonitrile (75-05-8)		
Partition coefficient n-octanol/water	-0,34	
Formic acid (64-18-6)		
BCF - Fish [1]	(0.22 dimensionless)	
Partition coefficient n-octanol/water	-1,9 (at 23 °C (at pH 5)	

## 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

## **ZipChip Peptides BGE**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: 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 %.

#### 12.7. Other adverse effects

Additional information : No other effects known

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## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation. The generation of waste should

be avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA

#### 14.1. UN number or ID number

UN-No. (ADR) : UN 1648 UN-No. (IMDG) : UN 1648 UN-No. (IATA) : UN 1648

## 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ACETONITRILE
Proper Shipping Name (IMDG) : ACETONITRILE
Proper Shipping Name (IATA) : Acetonitrile

#### 14.3. Transport hazard class(es)

#### **ADR**

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3



#### **IMDG**

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



#### IATA

Transport hazard class(es) (IATA) : 3
Danger labels (IATA) : 3



#### 14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II

## 14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available.

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## 14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

**Overland transport** 

Limited quantities (ADR) : 1I

Orange plates

33 1648

Transport by sea

Limited quantities (IMDG) : 1 L

Air transport

PCA limited quantity max net quantity (IATA) : 1L PCA max net quantity (IATA) : 5L

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

#### **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 REACH candidate substance.

#### **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)

#### **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

## Belgium

Belgian National Regulations : Not determined

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#### **France**

Occupational diseases		
Code	Description	
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide	

#### 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).

Storage class (LGK, TRGS 510) : LGK 3 - Flammable liquids.

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Italy

Italian National Regulations : Not determined.

**Netherlands** 

SZW-lijst van kankerverwekkende stoffen : None of the components are listed SZW-lijst van mutagene stoffen : None of the components are listed SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Sofstvocking : None of the components are listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

**Denmark** 

Class for fire hazard : Class I-1 Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids

must be followed

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Indication of changes				
Section	Changed item	Change	Comments	
14	Transport information	Modified	V1.1	
SDS	Name	Modified	V1.1	

#### **Abbreviations and acronyms:**

°C – Degrees Celsius

°F – Degrees Fahrenheit

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

ACGIH - American Conference of Governmental Industrial Hygienists

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

BEI – Biological Exposure Index

CAS - Chemical Abstracts Service

CLP - Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.

CMR - Carcinogen, Mutagen, Reproductive toxin

cP - centipoise (unit of dynamic viscosity)

## Safety Data Sheet

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

## **Abbreviations and acronyms:**

cSt - centistokes (unit of kinematic viscosity)

DNEL – Derived No-effect Level

DMEL - Derived Minimal Effect Level

EC50 - Half maximal effective concentration

ECHA - European Chemicals Agency

EC-No. - European Community number

EU - European Union

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

h - Hours

IATA – International Air Transport Association

IC50 - Inhibition concentration

IDLH - Immediately Dangerous to Life or Health

IMDG - International Maritime Dangerous Goods

IOELV - Indicative Occupational Exposure Limit Value

KIFS - Swedish Chemicals Agency's (Keml's) Code of Statutes

kPa - kilopascal

Koc - Adsorption Coefficient

Kow - Octanol-Water Partition Coefficient

LC50 - Median Lethal Concentration

LD50 - Median Lethal Dose

LOAEL - Lowest Observed Adverse Effect level

mg/l - Milligram per liter

mg/kg - Milligram per kilogram

mg/m3 - Milligram per cubic meter

Min - Minutes

NIOSH - National Institute for Occupational Safety and Health

NOEC – No Observed Effect Concentration

NO(A)EL - No Observed (Adverse) Effect Level

N.O.S. - Not Otherwise Specified

OEL - Occupational Exposure Limit

PBT - Persistent, Bioaccumulative and Toxic

PCN - Poison Centre Notification

PNEC - Predicted No Effect Concentration

ppm - Parts per million

PVC - Polyvinyl chloride

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - European Agreement concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety Data Sheet

STEL - Short Term Exposure Limit

STOT - Specific Target Organ Toxicity

SVHC - Substance of Very High Concern (CMR, vPvB, PBT)

TDI - Tolerable Daily Intake

TLV - Threshold Limit Value

TWA – Time Weighted Average

UFI - Unique Formulation Identifier

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

WEL - Workplace Exposure Limit

WGK - Wassergefahrdungklasse - German water quality classification

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

Prepared by

None.

Nexreg Compliance Inc. www.Nexreg.com



## Safety Data Sheet

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

Full text of H- and EUH-statements:			
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3		
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) 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.		
H331	Toxic if inhaled.		
H332	Harmful if inhaled.		
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	On basis of test data
Acute Tox. 4 (Oral)	H302	Calculation method
Eye Irrit. 2	H319	Calculation method

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