

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 6.5 Revision Date 08.03.2016

Print Date 30.08.2017

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

# ACETONITRILE

1. Identification of the substance/mixture and of the company/undertaking

# 1.1. Product identifiers

Product name : Acetonitrile REACH No. : 01-2119471307-38 CAS-No. : 75-05-8

## 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:

Dystrybutor: distripark.com sp. z o.o ul. Sienkiewicza 4, 56-120 Brzeg Dolny tel. <u>+48 71 794 37 33</u> www.distripark.com email: sklep@distripark.com



E-mail address of the department responsible for the SDS: <a href="mailto:sklep@distripark.com">sklep@distripark.com</a>

# 1.4. Emergency telephone numer

Emergency Phone # Please contact your local authorities

#### 2. Hazards identification

#### 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Acute toxicity, Dermal (Category 4), H312 Eye irritation (Category 2), H319 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 Danger

Hazard statement(s) H225 Highly flammable liquid and vapour. H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled H319 Causes serious eye irritation.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378 In case of fire: Use dry powder or dry sand to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.

# 2.3. Other hazards

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.

# **3:** Composition/information on ingredients.

## 3.1. Substances:

Synonyms : Methyl cyanide ACN Formula : C2H3N Molecular weight : 41,05 g/mol CAS-No. : 75-05-8 EC-No. : 200-835-2 Index-No. : 608-001-00-3 Registration number : 01-2119471307-38

a) Hazardous ingredients according to Regulation (EC) No 1272/2008:

Product / ingredient name	Identifiers	Incl. [%]	Classification according to 1272/2008
Acetonitrile	CAS-No. 75-05-8 EC-No. 200-835-2 Index-No. 608-001-00-3 Registration number 01-2119471307-38	min. 99,5	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Irrit. 2, H319 Acute Tox. 4, H332

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 4. First aid measures

# 4.1 Description of first aid measures General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

# If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 4.2. 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

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

No data available.

#### 5. Firefighting measures.

## 5.1. Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

No data available.

## **5.3.** Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4.** Further information

Use water spray to cool unopened containers.

# 6. Accidental release measures.

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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### **6.2.** Environmental precautions.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains..

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

# **6.4. Reference to other sections.**

For disposal see section 13.

#### 7. Handling and storage.

## 7.1. Precautions for safe handling.

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Handle and store under inert gas.

# 7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## 8. Exposure controls/personal protection

## 8.1. Control parameters.

Control parameters Components with workplace control parameters Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Acute local effects, Acute systemic effects	68 mg/m3
Workers	Skin contact	Long-term systemic effects	32,2mg/kg BW/d
Workers	Inhalation	Long-term local effects, Long-term systemic effects	68 mg/m3
Consumers	Inhalation	Acute local effects	220 mg/m3
Consumers	Inhalation	Acute systemic effects	22 mg/m3
Consumers	Inhalation	Long-term systemic effects	4,8 mg/m3

## Predicted No Effect Concentration (PNEC)

Compartment	Value
Water	10 mg/l
Soil	2,41 mg/kg
Marine water	1 mg/l
Fresh water	10 mg/l
Fresh water sediment	7,53 mg/kg
Onsite sewage treatment plant	32 mg/l

#### **8.2.** Exposure controls

## Appropriate engineering controls

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

# **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).

## Skin protection

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

## Full contact\*

Material: butyl-rubber Minimum layer thickness: 0,3 mm Break through time: 480 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

#### Splash contact\*

Material: butyl-rubber Minimum layer thickness: 0,3 mm Break through time: 480 min Material tested:Butoject® (KCL 897 / Aldrich Z677647, Size M)

\*data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

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**

Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

# **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# 9. Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

Appearance Form : clear, liquid Colour : colourless Odour : ether-like Odour Threshold : No data available pH : No data available Melting point/freezing Melting point/range : -48 °C point Initial boiling point and boiling range : 81 - 82 °C Flash point : 2,0 °C - closed cup Evaporation rate : 5,8 Flammability (solid, gas) : No data available Upper/lower Upper explosion limit : 16 %(V)

#### Acetonitrile (cyanomethane)

Flammability or Lower explosion limit : 3 %(V) Vapour pressure : 73,18 hPa at 15 °C 121,44 hPa at 25 °C 413,23 hPa at 55 °C 98,64 hPa at 20 °C Vapour density : 1,42 - (Air = 1.0) Relative density : 0,786 g/mL at 25 °C Water solubility : completely soluble Viscosity : No data available Explosive properties : Not explosive Oxidizing properties : The substance or mixture is not classified as oxidizing.

## 9.2. Other safety information

Surface tension : 29,0 mN/m at 20,0 °C Relative vapour density : 1,42 - (Air = 1.0)

## 10. Stability and reactivity

## 10.1. Reactivity.

No data available

# 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

No data available

## 10.4. Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

#### **10.5. Incompatible materials:**

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

#### 10.6. Hazardous decomposition products:

Other decomposition products - No data available Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx) In the event of fire: see section 5.

#### 11. Toxicological information

## 11.1. Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male - 1.320 - 6.690 mg/kg LC50 Inhalation - Mouse - 4 h - 3587 ppm (OECD Test Guideline 403) LC50 Inhalation - Rat - 4 h - 26,8 mg/l LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

#### Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation

#### Acetonitrile (cyanomethane)

#### (OECD Test Guideline 404)

## Serious eye damage/eye irritation

Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)

## Respiratory or skin sensitisation

Buehler Test - Guinea pig Did not cause sensitisation on laboratory animals. (OECD Test Guideline 406)

## Germ cell mutagenicity

<u>Hamster ovary</u> Result: negative Mutation in mammalian somatic cells.

Ames test S. typhimurium Result: Not mutagenic in Ames Test

Hamster ovary Result: Equivocal evidence. Sister chromatid exchange

Mutagenicity (micronucleus test) Mouse Result: Positive results were obtained in some in vivo tests.

## Carcinogenicity

No evidence of carcinogenicity in animal studies. IARC: 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**

Animal testing did not show any effects on fertility.

#### Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

## Aspiration hazard

No aspiration toxicity classification

#### **Additional Information**

## RTECS: AL7700000

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, Diarrhoea, Headache, Dizziness, Rash, Cyanosis, excitement, depression, Drowsiness, impaired judgment, Lack of coordination, stupor, death.

# 12. Ecological information

# 12.1. Toxicity

# Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 1.640,00 mg/l - 96 h NOEC - Oryzias latipes - 102 mg/l - 21 d

# Toxicity to daphnia and other aquatic

EC50 - Daphnia magna (Water flea) - 3.600 mg/l - 48 h (OECD Test Guideline 202) invertebrates NOEC - Daphnia magna (Water flea) - 160 mg/l - 21 d

# 12.2. Persistence and degradability:

Biodegradability Result: 84 % - Readily biodegradable (OECD Test Guideline 301C).

## 12.3. Bioaccumulative potential:

No bioaccumulation is to be expected (log Pow  $\leq 4$ ).

## 12.4. Mobility in soil.

Not expected to adsorb on soil.

## 12.5. Results of PBT and vPvB 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.

## 12.6. Other adverse effects:

Avoid release to the environment. Stability in water

#### 13. Disposal considerations

# **13.1.** Waste treatment methods

#### **Product:**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

# **Contaminated packaging**

Dispose of as unused product.

#### 14. Transport information

# 14.1. UN numer:

ADR/RID: 1648 IMDG: 1648 IATA: 1648

# 14.2. UN proper shipping name

ADR/RID : ACETONITRILE IMDG : ACETONITRILE IATA : Acetonitrile



# ADR/RID: 3 IMDG: 3 IATA: 3

## 14.4. Packaging group:

ADR/RID: II IMDG: II IATA: II

## 14.5. Environmental hazards:

ADR/RID: no IMDG Marine pollutant: no IATA: no

## 14.6. Special precautions for user:

No data available

# 15. Regulatory information

# 15.1. 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.

## **15.2 Chemical safety assessment**

A Chemical Safety Assessment has been carried out for this substance.

# 16. Other information

# Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

# **Further information**

The above information 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. It does not represent any guarantee of the properties of the product. SIA KSAN shall not be held liable for any damage resulting from handling or from contact with the above product.