

Printing date 30.07.2018 Revision: 30.10.2017

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

· 1.1 Product identifier

· Trade name: Acetonitrile, LC-MS

· Article number: AC0371

· CAS Number:

75-05-8

· EC number:

200-835-2

· Index number:

608-001-00-3

- · Registration number 01-2119471307-38-XXXX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against For other specific uses: see attached exposure scenarios.
- · Application of the substance / the preparation:

Solvents

Laboratory reagent

- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa

08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

· Regional representation:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

- · Further information obtainable from: technical department
- · 1.4 Emergency telephone number:

Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

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



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2 H319 Causes serious eye irritation.

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- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- · Hazard statements

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 statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- PBT: Not applicable.vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.1 Chemical characterisation: Substances
- · CAS No. Description
- 75-05-8 acetonitrile
- Identification number(s)
- · EC number: 200-835-2
- · Index number: 608-001-00-3

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: Call for a doctor immediately.

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 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

• 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Mouth respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Work only in fume cupboard.

Ensure good ventilation/exhaustion at the workplace.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in unopened original receptacles.

Store in a cool location.

• Information about storage in one common storage facility:

Store away from reducing agents.

Do not store together with textiles.

· Further information about storage conditions:

Protect from humidity and water.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

75-05-8 acetonitrile

WEL Short-term value: 102 mg/m³, 60 ppm Long-term value: 68 mg/m³, 40 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

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

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Colour: Fluid Colourless

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Odour:
Odour threshold:
pH-value:
Ether-like
Not determined.
Not determined.

· Change in condition

Melting point/freezing point: -46 °C Initial boiling point and boiling range: 81 °C • Flash point: 2 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 525 °C

Decomposition temperature: Not determined.
 Auto-ignition temperature: Not determined.

· Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

· Explosion limits:

 Lower:
 4.4 Vol %

 Upper:
 16 Vol %

 • Vapour pressure at 20 °C:
 97 hPa

Density at 20 °C: 0.7822 g/cm³
 Relative density Not determined.
 Vapour density Not determined.
 Evaporation rate Not determined.

· Solubility in / Miscibility with

water: Fully miscible.Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic at 20 °C: 0.39 mPas
Kinematic: Not determined.

• **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity

Harmful if swallowed, in contact with skin or if inhaled.

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· LD/LC50 values relevant for classification:

LD50 2,730 mg/kg (rat)

Dermal LD50 1,250 mg/kg (rabbit)

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Causes serious eye irritation.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA

UN1648

· 14.2 UN proper shipping name

1648 ACETONITRILE

· ADR · IMDG, IATA

ACETONITRILE

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· 14.3 Transport hazard class(es)

· ADR, IMDG, IATA



Class 3 Flammable liquids.

· Label

· 14.4 Packing group

· ADR, IMDG, IATA

· 14.5 Environmental hazards:

· Marine pollutant:

• 14.6 Special precautions for user Warning: Flammable liquids.

· Danger code (Kemler): 33

· EMS Number: F-E,S-D

· Stowage Category

Stowage Code SW2 Clear of living quarters.

· 14.7 Transport in bulk according to Annex II

of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

Limited quantities (LQ)
 Transport category
 Tunnel restriction code

· UN "Model Regulation": UN 1648 ACETONITRILE, 3, II

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Seveso category P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 40
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- · Department issuing SDS: product safety department
- · Contact: msds@scharlab.com
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2

Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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Annex: Exposure scenario 1

- · 1 Short title of the exposure scenario Industrial use
- · Sector of Use
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
- SU9 Manufacture of fine chemicals
- · Product category
- PC19 Intermediate
- PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
- PC35 Washing and cleaning products (including solvent based products)
- PC40 Extraction agents
- · Process category
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
- PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
- PROC4 Chemical production where opportunity for exposure arises
- PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
- PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
- PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
- · Environmental release category
- ERC1 Manufacture of the substance
- ERC2 Formulation into mixture
- ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
- ERC6a Use of intermediate
- ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)
- ERC7 Use of functional fluid at industrial site
- Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · 2 Conditions of use
- · Duration and frequency 5 workdays/week.
- · Worker Regular use with exposure up to 8 hrs. per workday.
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity >1000 tons per year
- Other operational conditions
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure

Gloves required during a shift

Avoid contact with eyes.

Avoid contact with the skin.

Do not breathe gas/vapour/aerosol.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

Other operational conditions affecting consumer exposure during the use of the product
 The consumer has to be advised of the maximum permissible frequency and duration of use in the
 instructions for use.

The directions for use must indicate the limits for proper use.

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· Risk management measures

- · Worker protection
- · Organisational protective measures

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

· Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures No special measures required.
- · Air No special measures required.
- · Water No special measures required.
- · Soil No special measures required.
- · Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- · Disposal measures

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Waste type Partially emptied and uncleaned packaging
- · 3 Exposure estimation
- · Worker (dermal)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

PROC 1: 0.343 (mg/kg/d)

PROC 2: 1.37 (mg/kg/d)

PROC 3: 0.343 (mg/Kg/d)

PROC 4: 6.86 (mg/kg/d)

PROC 8a: 13.71 (mg/kg/d) PROC 8b: 6.86 (mg/kg/d)

PROC 9: 0.686 (mg/kg/d)

Worker (inhalation)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

PROC 1: 0.012 (mg/m3)

PROC 2: 12.0 (mg/m3)

PROC 3: 29.9 (mg/m3)

PROC 4: 24.0 (mg/m3)

PROC 8a: 60.0 (mg/m3)

PROC 8b: 60.0 (mg/m3)

PROC 9: 0.855 (mg/m3)

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· Environment

Water: No exposure Soil: No exposure

Purification plant: No exposure

Humans via environment: No exposure • 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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Annex: Exposure scenario 2

- · 1 Short title of the exposure scenario Laboratory use
- · Sector of Use SU24 Scientific research and development
- · Product category

PC21 Laboratory chemicals

PC40 Extraction agents

· Process category

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC15 Use as laboratory reagent • Environmental release category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC6a Use of intermediate

ERC7 Use of functional fluid at industrial site

· Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · 2 Conditions of use
- · Duration and frequency 5 workdays/week.
- · Worker Regular use with exposure up to 8 hrs. per workday.
- Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity >1000 tons per year
- · Other operational conditions Observe the general safety regulations when handling chemicals.
- · Other operational conditions affecting environmental exposure

Observe section 6 of the Safety Data Sheet (Accidental release measures).

· Other operational conditions affecting worker exposure

Avoid contact with eyes.

Avoid contact with the skin.

Do not breathe gas/vapour/aerosol.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

- · Risk management measures
- · Worker protection
- · Organisational protective measures

Persons, who tend to skin diseases or other hypersensitivity reactions of the skin, should not handle the product.

Ensure that activities are executed by specialists or authorised personnel only.

· Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Trade name: Acetonitrile, LC-MS

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- Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures No special measures required.
- · Air No special measures required.
- · Water No special measures required.
- · Soil No special measures required.
- · Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- · Disposal measures Ensure that waste is collected and contained.
- · Disposal procedures

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- Waste type Partially emptied and uncleaned packaging
- · 3 Exposure estimation
- · Worker (oral) No significant oral exposure
- · Worker (dermal)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

PROC 3: 0.343 (mg/kg/d) PROC 15: 0.034 (mg/kg/d)

· Worker (inhalation)

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

PROC 3: 8.55 (mg/m3) PROC 15: 3.42 (mg/m3)

Environment

Water: No exposure

Purification plant: No exposure

Soil: No exposure

Humans via environment: No exposure • 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.