

SAFETY DATA SHEET



Microsorb LC columns with less than 10 ml ACN type solvent

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

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

- Product name** : Microsorb LC columns with less than 10 ml ACN type solvent
- Part no.** : A099MG, A099MG2, A104MG, CP28160, CP30683, CP30686, CP30687, CP30704, CP30705, CP30710, CP30711, CP30712, CP30713, CP30714, CP30715, CP30719, CP30720, CP30722, CP30725, CP30731, CP30732, CP30734, CP30735, CP30740, CP30755, CP30758, CP30759, CP912347, CP914915, CP915173, R00083201C, R00083201G, R0080200C5, R0080200D5, R0080200E3, R0080200G3, R0080200G5, R0080210G5, R0080300D5, R0080310G5, R0080D00G5, R0083203C5, R0083203G5, R0083213G5, R0083303C5, R0083503C5, R0086200C5, R0086200C8, R0086200D5, R0086200E3, R0086200F3, R0086203C5, R0086300C5, R0086300C8, R0086300D5, R0086300E3, R0086300F3, R0086303C5, R0086503C5, R0086D00C5, R0086D00D5, R0086D00E3, R0089200C5, R0089200D5, R0089200E3, R0089203C5, R00892N0C5, R00892N0D5, R0089300C5, R00893N0D5, R0089503C5, R0089900C5, R0089900D5, R0089D00C5, R0089D00D5, R083213G10, R083313G10, R083503C10, R089900C10

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

- Material uses** : Reagents and Standards for Analytical Chemistry Laboratory Use
HPLC Column
- | | |
|------------|--|
| A099MG | MetaGuard 4.6mm Microsorb 100A 3u C18, 0.2 ml tube, 0.1 ml solvent |
| A099MG2 | MetaGuard 2.0mm Microsorb 100A 3u C18, 0.2 ml tube, 0.0 ml solvent |
| A104MG | MetaGuard 4.6mm Microsorb 100A 5u C18, 0.2 ml tube, 0.1 ml solvent |
| CP28160 | Microsorb 100-10 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent |
| CP30683 | Microsorb 100 - 5 BDS, S150x4.6 COL, 2.5 ml tube, 1.5 ml solvent |
| CP30686 | Microsorb 100 - 5 BDS, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30687 | Microsorb 100 - 5 BDS, S250x4.6 REPL, 4.2 ml tube, 2.5 ml solvent |
| CP30704 | Microsorb 100 - 3 C18, S100x4.6 COL, 1.7 ml tube, 1.0 ml solvent |
| CP30705 | Microsorb 100 - 3 C18, S100 4.6 REPL, 1.7 ml tube, 1.0 ml solvent |
| CP30710 | Microsorb 100 - 5 C18, S150x4.6 COL, 2.5 ml tube, 1.5 ml solvent |
| CP30711 | Microsorb 100 - 5 C18, S150 4.6 REPL, 2.5 ml tube, 1.5 ml solvent |
| CP30712 | Microsorb 100 - 5 C18, S150 4.6 REPL3, 2.5 ml tube, 1.5 ml solvent |
| CP30713 | Microsorb 100 - 5 C18, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30714 | Microsorb 100 - 5 C18, S250 4.6 REPL, 4.2 ml tube, 2.5 ml solvent |
| CP30715 | Microsorb 100 - 5 C18, S250 4.6 REPL3, 4.2 ml tube, 2.5 ml solvent |
| CP30719 | Microsorb 60 - 8 C18, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30720 | Microsorb 60 - 8 C18, S250x4.6 REPL, 4.2 ml tube, 2.5 ml solvent |
| CP30722 | Microsorb 100 - 3 C8, S50x4.6 COL, 0.8 ml tube, 0.5 ml solvent |
| CP30725 | Microsorb 100-3 C8, S100x4.6 COL, 1.7 ml tube, 1.0 ml solvent |
| CP30731 | Microsorb 100 - 5 C8, S150x4.6 COL, 2.5 ml tube, 1.5 ml solvent |
| CP30732 | Microsorb 100 - 5 C8, S150x4.6 REPL, 2.5 ml tube, 1.5 ml solvent |
| CP30734 | Microsorb 100 - 5 C8, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30735 | Microsorb 100 - 5 C8, S250x4.6 REPL, 4.2 ml tube, 2.5 ml solvent |
| CP30740 | Microsorb 60 - 8 C8, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30755 | Microsorb 100 - 5 Phenyl, S150x4.6 COL, 2.5 ml tube, 1.5 ml solvent |
| CP30758 | Microsorb 100 - 5 Phenyl, S250x4.6 COL, 4.2 ml tube, 2.5 ml solvent |
| CP30759 | Microsorb 100 - 5 Phenyl, S250x4.6 REP, 4.2 ml tube, 2.5 ml solvent |
| CP912347 | Microsorb 100-3 C18 30 x 4.6mm Conv., 0.5 ml tube, 0.3 ml solvent |
| CP914915 | Microsorb 100-5 C18, G100 x 3.0mm Repl., 0.7 ml tube, 0.4 ml solvent |
| CP915173 | Microsorb 100-5 C18 20 x 4.6mm Col, 0.3 ml tube, 0.2 ml solvent |
| R00083201C | Microsorb 60-8 C18 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent |
| R00083201G | Microsorb Guard-8 C18, 4.6 mm Dyn (3), 0.2 ml tube, 0.1 ml solvent |
| R0080200C5 | Microsorb 100-5 C18 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent |
| R0080200D5 | Microsorb 100-5 C18 Dynamax 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent |

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solvent	
R0080200E3	Microsorb 100-3 C18 Dynamax 100 x 4.6mm, 1.7 ml tube, 1.0 ml
solvent	
R0080200G3	Microsorb Guard-3 C18, 4.6 mm Dyn (3), 0.2 ml tube, 0.1 ml solvent
R0080200G5	Microsorb Guard 5 C18 4.6mm Dyn (3), 0.2 ml tube, 0.1 ml solvent
R0080210G5	Microsorb 100-5 C18 Dynamax Guard ½, 3.9 ml tube, 2.4 ml solvent
R0080300D5	Microsorb 100-5 C8 Dynamax 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0080310G5	Microsorb 100-5 C8 Dynamax Guard ½, 3.9 ml tube, 2.4 ml solvent
R0080D00G5	Microsorb Guard-5 Phenyl, 4.6 mm Dyn (3), 0.2 ml tube, 0.1 ml solvent
R0083203C5	Microsorb 300-5 C18 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml
solvent	
R0083203G5	Microsorb Guard 300-5 C18, 4.6 mm Dyn(3), 0.2 ml tube, 0.1 ml
solvent	
R0083213G5	Microsorb 300-5 C18 Dynamax Guard ½, 3.9 ml tube, 2.4 ml solvent
R0083303C5	Microsorb 300-5 C8 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0083503C5	Microsorb 300-5 C4 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml
solvent	
R0086200C5	Microsorb-MV 100-5 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086200C8	Microsorb-MV 100-8 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086200D5	Microsorb-MV 100-5 C18 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0086200E3	Microsorb-MV 100-3 C18 100 x 4.6mm, 1.7 ml tube, 1.0 ml solvent
R0086200F3	Microsorb-MV 100-3 C18 50 x 4.6mm, 0.8 ml tube, 0.5 ml solvent
R0086203C5	Microsorb-MV 300-5 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086300C5	Microsorb-MV 100-5 C8 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086300C8	Microsorb-MV 100-8 C8 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086300D5	Microsorb-MV 100-5 C8 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0086300E3	Microsorb-MV 100-3 C8 100 x 4.6mm, 1.7 ml tube, 1.0 ml solvent
R0086300F3	Microsorb-MV 100-3 C8 50 x 4.6mm, 0.8 ml tube, 0.5 ml solvent
R0086303C5	Microsorb-MV 300-5 C8 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086503C5	Microsorb-MV 300-5 C4 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086D00C5	Microsorb-MV 100-5 Phenyl 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0086D00D5	Microsorb-MV 100-5 Phenyl 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0086D00E3	Microsorb-MV 100-3 Phenyl 100 x 4.6mm, 1.7 ml tube, 1.0 ml solvent
R0089200C5	Microsorb 100-5 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0089200D5	Microsorb 100-5 C18 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0089200E3	Microsorb 100-3 C18 100 x 4.6mm, 1.7 ml tube, 1.0 ml solvent
R0089203C5	Microsorb 300-5 C18 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R00892N0C5	Microsorb 100-5 C18 250 x 2.0mm, 0.8 ml tube, 0.5 ml solvent
R00892N0D5	Microsorb 100-5 C18 150 x 2.0mm, 0.5 ml tube, 0.3 ml solvent
R0089300C5	Microsorb 100-5 C8 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0089300D5	Microsorb 100-5 C8 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R00893N0D5	Microsorb 100-5 C8 150 x 2.0mm, 0.5 ml tube, 0.3 ml solvent
R0089503C5	Microsorb 300-5 C4 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0089900C5	Microsorb 100-5 BDS 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0089900D5	Microsorb 100-5 BDS 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R0089D00C5	Microsorb 100-5 Phenyl 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent
R0089D00D5	Microsorb 100-5 Phenyl 150 x 4.6mm, 2.5 ml tube, 1.5 ml solvent
R083213G10	Microsorb 300-10 C18 Dynamax Guard 1/2, 3.9 ml tube, 2.4 ml solvent
R083313G10	Microsorb 300-10 C8 Dynamax Guard 1/2, 3.9 ml tube, 2.4 ml solvent
R083503C10	Microsorb 300-10 C4 Dynamax 250 x 4.6mm, 4.2 ml tube, 2.5 ml
solvent	
R089900C10	Microsorb 100-10 BDS 250 x 4.6mm, 4.2 ml tube, 2.5 ml solvent

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

Product definition : Mixture (encapsulated in article)

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

H225 FLAMMABLE LIQUIDS - Category 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapour.
H319 - Causes serious eye irritation.

Precautionary statements

Prevention : P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

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SECTION 2: Hazards identification

Tactile warning of danger : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

3.1 Substances : Mixture (encapsulated in article)

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Acetonitrile	EC: 200-835-2 CAS: 75-05-8 Index: 608-001-00-3	≥10 - <25	Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 See Section 16 for the full text of the H statements declared above.	[1] [2]

Contains: Organosilane bonded silica gel.

Note: To the best of our knowledge, the acute and chronic toxicological properties of bonded silica gels have not been investigated. This product contains synthetic amorphous silica, and should not be confused with crystalline silica such as quartz, cristobalite, or tridymite, or with diatomaceous earth or other naturally occurring forms of amorphous silica that frequently contain crystalline forms of silica.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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SECTION 4: First aid measures

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides
cyanides

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SECTION 5: Firefighting measures

5.3 Advice for firefighters

- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
5c	5000	50000

7.3 Specific end use(s)

Recommendations : Industrial applications, Professional applications.

Industrial sector specific solutions : Not applicable.

SECTION 8: Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Acetonitrile	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 102 mg/m ³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 40 ppm 8 hours. TWA: 68 mg/m ³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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SECTION 8: Exposure controls/personal protection

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. (containing flammable liquid)
- Colour** : White.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : Neutral.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: -18 to 23°C
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Contains: Flammable liquid.
- Upper/lower flammability or explosive limits** : Not available.
- Vapour pressure** : Not available.
- Vapour density** : Not available.

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SECTION 9: Physical and chemical properties

Relative density	: Not available.
Solubility(ies)	: Mobile phase: Soluble Stationary phase: Insoluble
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: The product is stable.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials Incompatible with hydrogen fluoride.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -

Acute toxicity estimates

Route	ATE value
Oral Dermal Inhalation (vapours)	2083.3 mg/kg 4583.3 mg/kg 45.83 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

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SECTION 11: Toxicological information

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.

Ingestion : No specific data.

Skin contact : No specific data.

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

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Fertility effects : No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

12.2 Persistence and degradability

Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetonitrile	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Acetonitrile	-0.34	3	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

This Safety Data Sheet is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

ADR/RID / IMDG / IATA : Not regulated.

Additional information

Special provisions

ADR: 216

IATA: A46

IMDG: 216

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

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SECTION 15: Regulatory information

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: Not determined.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: All components are listed or exempted.
New Zealand	: <input checked="" type="checkbox"/> All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: <input checked="" type="checkbox"/> All components are listed or exempted.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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SECTION 16: Other information

Classification	Justification
Flam. Liq. 2, H225 Eye Irrit. 2, H319	On basis of test data Calculation method

Full text of abbreviated H statements

H225 H302 H312 H319 H332	Highly flammable liquid and vapour. Harmful if swallowed. Harmful in contact with skin. Causes serious eye irritation. Harmful if inhaled.
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Full text of classifications [CLP/GHS]

Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Eye Irrit. 2, H319 Flam. Liq. 2, H225	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2
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