

# SAFETY DATA SHEET

## ZORBAX SB-C18 LC Columns

### Section 1. Identification

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** : ZORBAX SB-C18 LC Columns  
**Part no.** : 7995218-595, 7995208-585, 7995218-344  
**Validation date** : 4/18/2023

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

**Identified uses** :  Analytical chemistry.  
 LC column  
 7995218-595 ZORBAX SB-C18, 4.6 x 150 mm, 5 u, 1.5 ml solvent, 2.5 ml tube  
 7995218-585 ZORBAX SB-C18, 4.6 x 250 mm, 5 u, 2.5 ml solvent, 4.2 ml tube  
 7995218-344 ZORBAX SB-C18, 4.6 x 75 mm, 3.5 u, 0.7 ml solvent, 1.2 ml tube

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

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

#### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

### 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

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### Classification of the substance or mixture

 H225 FLAMMABLE LIQUIDS - Category 2  
 H301 ACUTE TOXICITY (oral) - Category 3  
 H311 ACUTE TOXICITY (dermal) - Category 3  
 H331 ACUTE TOXICITY (inhalation) - Category 3  
 H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

#### 2.2 GHS label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

:  H225 - Highly flammable liquid and vapor.  
 H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.  
 H370 - Causes damage to organs. (central nervous system (CNS), optic nerve)

## Section 2. Hazards identification

### Precautionary statements

#### Prevention

- : P280 - Wear protective gloves and protective clothing.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 - Use explosion-proof electrical, ventilating or lighting equipment.
- P242 - Use non-sparking tools.
- P243 - Take action to prevent static discharges.
- P233 - Keep container tightly closed.
- P260 - Do not breathe vapor.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash thoroughly after handling.

#### Response

- : P308 + P311 - IF exposed: Call a POISON CENTER or doctor.
- P304 + P340, P311 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor.
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse.
- P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water.

#### Storage

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

#### Disposal

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

### 2.3 Other hazards

#### Hazards not otherwise classified

- : 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.

**Substance/mixture** : Mixture (encapsulated in article)

| Ingredient name | %         | CAS number |
|-----------------|-----------|------------|
| Methanol        | ≥25 - ≤50 | 67-56-1    |

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.

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

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### 4.1 Description of necessary 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. If necessary, call a poison center or physician.

## Section 4. First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** :  Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. 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.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** :  No known significant effects or critical hazards.
- Inhalation** :  Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- Skin contact** :  Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- Ingestion** :  Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** :  No specific data.
- Inhalation** :  No specific data.
- Skin contact** :  No specific data.
- Ingestion** :  No specific data.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

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

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. 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 thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides  
Formaldehyde.

### 5.3 Advice for firefighters

- Special protective actions 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.

## 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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 spilled 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 materials 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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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

- : 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. Store locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

- Recommendations** : Industrial applications, Professional applications.
- Industrial sector specific solutions** : Not available.

## 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

| Ingredient name | Exposure limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methanol        | <p><b>ACGIH TLV (United States, 1/2022).</b><br/> <b>Absorbed through skin.</b><br/>           TWA: 200 ppm 8 hours.<br/>           TWA: 262 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 250 ppm 15 minutes.<br/>           STEL: 328 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/> <b>Absorbed through skin.</b><br/>           TWA: 200 ppm 8 hours.<br/>           TWA: 260 mg/m<sup>3</sup> 8 hours.<br/>           STEL: 250 ppm 15 minutes.<br/>           STEL: 325 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2020).</b><br/> <b>Absorbed through skin.</b><br/>           TWA: 200 ppm 10 hours.<br/>           TWA: 260 mg/m<sup>3</sup> 10 hours.<br/>           STEL: 250 ppm 15 minutes.</p> |

## Section 8. Exposure controls/personal protection

STEL: 325 mg/m<sup>3</sup> 15 minutes.  
**OSHA PEL (United States, 5/2018).**  
 TWA: 200 ppm 8 hours.  
 TWA: 260 mg/m<sup>3</sup> 8 hours.

### Biological exposure indices

| Ingredient name | Exposure indices                                                                                            |
|-----------------|-------------------------------------------------------------------------------------------------------------|
| Methanol        | <b>ACGIH BEI (United States, 1/2022)</b><br>BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift. |

### 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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### 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.

### 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: safety glasses with side-shields.

#### 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.

##### 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.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

| Physical state                                                                             | : Solid. (containing flammable liquid)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------|------------------------|------|------------------------|--|--|-------|-----|--------|-------|-----|--------|--------------------------------------------------------------------------------------------|--------|------|--|--|--|--|-------|------|-----|--|--------|------|--|
| Color                                                                                      | : White.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Odor                                                                                       | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Odor threshold                                                                             | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| pH                                                                                         | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Melting point/freezing point                                                               | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Boiling point, initial boiling point, and boiling range                                    | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Flash point                                                                                | :  Closed cup: -18 to 23°C (-0.4 to 73.4°F) [Based on solvent.]                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Evaporation rate                                                                           | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Flammability                                                                               | :  Not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Lower and upper explosion limit/flammability limit                                         | : Not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| Vapor pressure                                                                             | : <table><tr><th rowspan="2">Ingredient name</th><th colspan="3">Vapor Pressure at 20°C</th><th colspan="3">Vapor pressure at 50°C</th></tr><tr><th>mm Hg</th><th>kPa</th><th>Method</th><th>mm Hg</th><th>kPa</th><th>Method</th></tr><tr><td> Methanol</td><td>126.96</td><td>16.9</td><td></td><td></td><td></td><td></td></tr><tr><td>water</td><td>23.8</td><td>3.2</td><td></td><td>92.258</td><td>12.3</td><td></td></tr></table> | Ingredient name | Vapor Pressure at 20°C |                        |      | Vapor pressure at 50°C |  |  | mm Hg | kPa | Method | mm Hg | kPa | Method |  Methanol | 126.96 | 16.9 |  |  |  |  | water | 23.8 | 3.2 |  | 92.258 | 12.3 |  |
| Ingredient name                                                                            | Vapor Pressure at 20°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                 |                        | Vapor pressure at 50°C |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
|                                                                                            | mm Hg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | kPa             | Method                 | mm Hg                  | kPa  | Method                 |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
|  Methanol | 126.96                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 16.9            |                        |                        |      |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |
| water                                                                                      | 23.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.2             |                        | 92.258                 | 12.3 |                        |  |  |       |     |        |       |     |        |                                                                                            |        |      |  |  |  |  |       |      |     |  |        |      |  |

Relative vapor density : Not available.

Relative density : Not available.

| Solubility(ies)                                                                                  | : <table border="1"> <thead> <tr> <th>Media</th><th>Result</th></tr> </thead> <tbody> <tr> <td> Mobile phase</td><td>Soluble</td></tr> <tr> <td>Stationary phase</td><td>Insoluble</td></tr> </tbody> </table> | Media | Result |  Mobile phase | Soluble | Stationary phase | Insoluble |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|--------------------------------------------------------------------------------------------------|---------|------------------|-----------|
| Media                                                                                            | Result                                                                                                                                                                                                                                                                                            |       |        |                                                                                                  |         |                  |           |
|  Mobile phase | Soluble                                                                                                                                                                                                                                                                                           |       |        |                                                                                                  |         |                  |           |
| Stationary phase                                                                                 | Insoluble                                                                                                                                                                                                                                                                                         |       |        |                                                                                                  |         |                  |           |

Miscible with water :  No.

Partition coefficient: n-octanol/water :  Not applicable.

|                           |   |                                                                                              |     |     |           |
|---------------------------|---|----------------------------------------------------------------------------------------------|-----|-----|-----------|
| Auto-ignition temperature | : | Ingredient name                                                                              | °C  | °F  | Method    |
|                           |   |  Methanol | 455 | 851 | DIN 51794 |

Decomposition temperature : 250°C (482°F)

Viscosity : Not available.

### Particle characteristics

Median particle size :  Not applicable.

## 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 pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

## Section 10. Stability and reactivity

**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 |
|-------------------------|-----------------------|---------|-------------|----------|
| Methanol                | LC50 Inhalation Vapor | Rat     | 189.95 mg/l | 1 hours  |
|                         | LC50 Inhalation Vapor | Rat     | 145000 ppm  | 1 hours  |
|                         | LC50 Inhalation Vapor | Rat     | 83.84 mg/l  | 4 hours  |
|                         | LC50 Inhalation Vapor | Rat     | 64000 ppm   | 4 hours  |
|                         | LD50 Dermal           | Rabbit  | 15800 mg/kg | -        |
|                         | LD50 Oral             | Rat     | 5600 mg/kg  | -        |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure        | Observation |
|-------------------------|--------------------------|---------|-------|-----------------|-------------|
| Methanol                | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 mg | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 40 mg           | -           |
|                         | Skin - Moderate irritant | Rabbit  | -     | 24 hours 20 mg  | -           |

#### Conclusion/Summary

**Skin** : Repeated exposure may cause skin dryness or cracking.

**Eyes** : May cause eye irritation.

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Repeated or prolonged exposure to the substance can produce reproductive system damage.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

| Name     | Category   | Route of exposure | Target organs                             |
|----------|------------|-------------------|-------------------------------------------|
| Methanol | Category 1 | -                 | central nervous system (CNS), optic nerve |

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

## Section 11. Toxicological information

Not available.

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

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.  
**Skin contact** : Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.  
**Ingestion** : Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects and also 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.  
**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name              | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--------------------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| ZORBAX SB-C18 LC Columns<br>Methanol | 297.1<br>100 | 891.2<br>300   | N/A<br>N/A               | 8.9<br>3                   | N/A<br>N/A                          |

**Other information** : Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.

## Section 12. Ecological information

### 12.1 Toxicity

| Product/ingredient name | Result                               | Species                               | Exposure |
|-------------------------|--------------------------------------|---------------------------------------|----------|
| Methanol                | Acute EC50 2736 mg/l Marine water    | Algae - Ulva pertusa                  | 96 hours |
|                         | Acute LC50 2500000 µg/l Marine water | Crustaceans - Crangon crangon - Adult | 48 hours |
|                         | Acute LC50 3289 mg/l Fresh water     | Daphnia - Daphnia magna - Neonate     | 48 hours |
|                         | Acute LC50 290 mg/l Fresh water      | Fish - Danio rerio - Egg              | 96 hours |
|                         | Chronic NOEC 9.96 mg/l Marine water  | Algae - Ulva pertusa                  | 96 hours |

### 12.2 Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Methanol                | -                 | -          | Readily          |

### 12.3 Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Methanol                | -0.77              | <10 | low       |

### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

#### United States - RCRA Toxic hazardous waste "U" List

| Ingredient   | CAS #   | Status | Reference number |
|--------------|---------|--------|------------------|
| Methanol (I) | 67-56-1 | Listed | U154             |

## Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 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.

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

### Additional information

**Remarks:** Special provisions

DOT: 47

TDG: 56

MX: 216

IATA: A46

IMDG: 216

**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.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

## Section 15. Regulatory information

### SARA 311/312

**Classification** :  FLAMMABLE LIQUIDS - Category 2  
 ACUTE TOXICITY (oral) - Category 3  
 ACUTE TOXICITY (dermal) - Category 3  
 ACUTE TOXICITY (inhalation) - Category 3  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

### Composition/information on ingredients

| Name                                                                                                                         | %                      | Classification                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Organosilane bonded silica gel<br>Methanol | ≥50 - ≤75<br>≥25 - ≤50 | COMBUSTIBLE DUSTS<br>FLAMMABLE LIQUIDS - Category 2<br>ACUTE TOXICITY (oral) - Category 3<br>ACUTE TOXICITY (dermal) - Category 3<br>ACUTE TOXICITY (inhalation) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 |

### SARA 313

|                                        | Product name | CAS number | %         |
|----------------------------------------|--------------|------------|-----------|
| <b>Form R - Reporting requirements</b> | Methanol     | 67-56-1    | ≥25 - ≤50 |
| <b>Supplier notification</b>           | Methanol     | 67-56-1    | ≥25 - ≤50 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts** :  The following components are listed: METHANOL  
**New York** : The following components are listed: Methanol  
**New Jersey** :  The following components are listed: METHYL ALCOHOL  
**Pennsylvania** : The following components are listed: METHANOL

### California Prop. 65

 **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| Ingredient name | No significant risk level | Maximum acceptable dosage level |
|-----------------|---------------------------|---------------------------------|
| Methanol        | -                         | Yes.                            |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

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.

## Section 15. Regulatory information

|                                |                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Canada</b>                  | :  All components are listed or exempted.                         |
| <b>China</b>                   | :  All components are listed or exempted.                         |
| <b>Eurasian Economic Union</b> | : <b>Russian Federation inventory</b> : All components are listed or exempted.                                                                     |
| <b>Japan</b>                   | : <b>Japan inventory (CSCL)</b> : All components are listed or exempted.<br><b>Japan inventory (ISHL)</b> : All components are listed or exempted. |
| <b>New Zealand</b>             | : All components are listed or exempted.                                                                                                           |
| <b>Philippines</b>             | : Not determined.                                                                                                                                  |
| <b>Republic of Korea</b>       | :  All components are listed or exempted.                         |
| <b>Taiwan</b>                  | :  All components are listed or exempted.                         |
| <b>Thailand</b>                | : Not determined.                                                                                                                                  |
| <b>Turkey</b>                  | : All components are listed or exempted.                                                                                                           |
| <b>United States</b>           | : All components are active or exempted.                                                                                                           |
| <b>Viet Nam</b>                | : Not determined.                                                                                                                                  |

## Section 16. Other information

### Procedure used to derive the classification

| Classification                                                                                                  | Justification         |
|-----------------------------------------------------------------------------------------------------------------|-----------------------|
|  FLAMMABLE LIQUIDS - Category 2 | On basis of test data |
| ACUTE TOXICITY (oral) - Category 3                                                                              | Calculation method    |
| ACUTE TOXICITY (dermal) - Category 3                                                                            | Calculation method    |
| ACUTE TOXICITY (inhalation) - Category 3                                                                        | Calculation method    |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1                                                   | Calculation method    |

### History

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of issue</b>          | : 04/18/2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Date of previous issue</b> | : 02/23/2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Version</b>                | : 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Key to abbreviations</b>   | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>N/A = Not available<br>UN = United Nations |

 Indicates information that has changed from previously issued version.

### Notice to reader

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