



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)  
Canada Hazardous Products Regulations (SOR/2015-17)

Revision date 17-Feb-2023

Revision Number 2

## 1. Identification

### Product identifier

Product Name CAB-O-SPERSE® 2017A Fumed Silica Dispersion

### Other means of identification

Product Code(s) 2017A

Synonyms Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica, Aqueous dispersion

### Recommended use of the chemical and restrictions on use

Recommended use Various, Rheological control, Flow agent, Stabilization agent

Restrictions on use None known.

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

|                                    |                          |
|------------------------------------|--------------------------|
| Cabot Business & Technology Center | Cabot Corporation        |
| 157 Concord Road                   | 4400 North Point Parkway |
| Billerica, Massachusetts           | Suite 200                |
| 01821                              | Alpharetta, Georgia      |
| United States                      | 30022                    |
| Tel: +1 978 663 3455               | United States            |
| Fax: +1 978 663 5471               | Tel: +1 678 297 1300     |
|                                    | Fax: +1 678 297 1245     |

### Emergency telephone number

Emergency Telephone US: CHEMTREC : 1-800-424-9300 or +1-703-527-3887  
International CHEMTREC: +1 703-741-5970 or +1-703-527-3887

## 2. Hazard(s) identification

### Classification

This product is not considered hazardous by either the US 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) or the Canadian Workplace Hazardous Material Information System (WHMIS 2015)

### Label elements

Signal word  
None

Hazard statements  
None

Precautionary statements  
None

Other information

May cause skin and eye irritation. Dried product may be irritating to respiratory tract.

**3. Composition/information on ingredients**Substance

Not applicable.

Mixture

Synonyms Silicon Dioxide, Synthetic Amorphous Silica, Pyrogenic (Fumed) Amorphous Silica, Aqueous dispersion

| Chemical name                         | CAS No      | Weight-% | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|---------------------------------------|-------------|----------|------------------------------------------------------------------------------|-------------------------------------------------------------|
| Water                                 | 7732-18-5   | > 80     | -                                                                            | -                                                           |
| Synthetic Amorphous, Pyrogenic Silica | 112945-52-5 | < 20     | -                                                                            | -                                                           |

Additional information

Regulatory information is found under the general silica: CAS RN 7631-86-9

The hyphen (-) means "not applicable"

**4. First-aid measures**Description of first aid measures

|              |                                                                                                                                                                                                             |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures. |
| Eye contact  | In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.                                                                       |
| Skin contact | Wash skin with soap and water. Get medical attention if symptoms occur.                                                                                                                                     |
| Ingestion    | Do NOT induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.                                                                                           |

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

**5. Fire-fighting measures**

|                                            |                                                                                                                                                          |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable Extinguishing Media               | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO2). Foam. Dry chemical. Water. |
| Unsuitable extinguishing media             | None.                                                                                                                                                    |
| Specific hazards arising from the chemical | None.                                                                                                                                                    |

|                                                                |                                                                                              |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Hazardous combustion products                                  | None                                                                                         |
| Explosion data                                                 |                                                                                              |
| Sensitivity to mechanical impact                               | None.                                                                                        |
| Sensitivity to static discharge                                | None.                                                                                        |
| Special protective equipment and precautions for fire-fighters | In case of fire: Wear self-contained breathing apparatus. Use personal protection equipment. |

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

|                      |                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------|
| Personal precautions | Avoid formation of dust and aerosols. Ensure adequate ventilation. Use personal protection equipment. See section 8. |
|----------------------|----------------------------------------------------------------------------------------------------------------------|

### Environmental precautions

|                           |                                                                                                                                 |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Environmental precautions | Contain spilled product on land, if possible. Local authorities should be advised if significant spillages cannot be contained. |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------|

### Methods and material for containment and cleaning up

|                         |                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methods for containment | Prevent further leakage or spillage if safe to do so.                                                                                                                                                                                                                                                    |
| Methods for cleaning up | Soak up with inert absorbent material. If dried: Clean up promptly by vacuum. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Pick up and transfer to properly labeled containers. See section 13. |

## 7. Handling and storage

### Precautions for safe handling

|                                |                                                                                                                                                                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling        | Avoid contact with skin and eyes. Avoid the formation of dust from dried product, aerosols and/or mists. Do not breathe aerosols or dust from dried material. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                                        |

### Conditions for safe storage, including any incompatibilities

|                    |                                                                                  |
|--------------------|----------------------------------------------------------------------------------|
| Storage Conditions | Do not freeze. Store at ambient conditions. Keep in properly labeled containers. |
|--------------------|----------------------------------------------------------------------------------|

## 8. Exposure controls/personal protection

### Control parameters

|                 |                                                                                                                                  |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------|
| Exposure Limits | There are no exposure limits identified for this product. Exposure limits for components or similar components are stated below. |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------|

| Chemical name | Amorphous Silica<br>7631-86-9      |
|---------------|------------------------------------|
| OSHA PEL      | (vacated) TWA: 6 mg/m <sup>3</sup> |

|                   |                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other information | In its facilities globally, Cabot Corporation manages silica to the Germany TRGS 900 occupational exposure limit of 4 mg/m <sup>3</sup> , TWA, Inhalable fraction. |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Appropriate engineering controls

|                      |                                                                                                                                                                                                                                                                           |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering controls | Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. Ensure that eyewash stations and safety showers are close to the workstation location. |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Individual protection measures, such as personal protective equipment

|                                 |                                                                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye/face protection             | Wear eye/face protection. Wear safety glasses with side shields (or goggles).                                                                      |
| Hand protection                 | Wear protective gloves to prevent soiling of hands. Use protective barrier cream before handling the product.                                      |
| Skin and body protection        | Wear suitable protective clothing. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. |
| Respiratory protection          | Approved respirator may be necessary if local exhaust ventilation is not adequate.                                                                 |
| Environmental exposure controls | In accordance with all local legislation and permit requirements.                                                                                  |
| General hygiene considerations  | Handle in accordance with good industrial hygiene and safety practice.                                                                             |

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                    |
|----------------|--------------------|
| Physical state | Liquid             |
| Appearance     | dispersion; Slurry |
| Color          | white              |
| Odor           | None               |
| Odor threshold | Not applicable     |

| <u>Property</u>                | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------|---------------|-------------------------|
| pH                             | 9.5 - 10      | In-house testing        |
| Melting point / freezing point | ~0 °C         | Information on water    |
| Boiling point / boiling range  | ~100 °C       | Information on water    |
| Flash point                    |               | Not applicable          |
| Evaporation rate               |               | No data available       |
| Flammability (solid, gas)      |               | Not applicable          |
| Flammability Limit in Air      |               | Not applicable          |
| Vapor pressure                 |               | Similar to water        |
| Relative vapor density         |               | No data available       |
| Relative density               | 1.094-1.104   | at 20°C                 |
| Water solubility               | dispersible   |                         |
| Solubility(ies)                |               | No data available       |
| Partition coefficient          |               | Not applicable          |
| Autoignition temperature       |               | Not applicable          |
| Decomposition temperature      |               | Not applicable          |
| Kinematic viscosity            |               | No data available       |
| Dynamic viscosity              | 0 - 150 cP    | In-house testing        |
| <u>Other information</u>       |               |                         |
| Explosive properties           |               | Non-explosible          |
| Oxidizing properties           |               | No Oxidizing properties |
| Bulk density                   |               | Not applicable          |

## 10. Stability and reactivity

|                    |                                                                              |
|--------------------|------------------------------------------------------------------------------|
| Reactivity         | Not reactive.                                                                |
| Chemical stability | Stable under normal conditions. Stable under recommended storage conditions. |

|                                    |                                          |
|------------------------------------|------------------------------------------|
| Possibility of hazardous reactions | None under normal processing.            |
| Hazardous polymerization           | Hazardous polymerization does not occur. |
| Conditions to avoid                | Do not freeze.                           |
| Incompatible materials             | None known                               |
| Hazardous decomposition products   | None known                               |

## 11. Toxicological information

*Product, as formulated, has not been tested. Information given is based on data on the components.*

### Acute toxicity

Information given is based on Synthetic Amorphous Silica

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral LD50                         | > 5000 mg/kg (rat). No deaths occurred and no signs of toxicity were seen during the observation periods after single oral administration of silica(OECD 401).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Dermal LD50                       | > 2000 mg/kg (rabbit). Very slight transient erythema in one animal. No signs of systemic or organ toxicity (OECD 402).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Inhalation LC50                   | Due to the product's physical characteristics, no suitable testing procedure is available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Skin corrosion/irritation         | Primary irritation index = 0/8 @ 24 hr. Not classified as an irritant (OECD 404).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Serious eye damage/eye irritation | Draize score 1.0/110 @ 24 hr. Not classified as an irritant in rabbit studies (OECD 405). High dust concentrations may cause mechanical irritation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Respiratory or skin sensitization | No experimental animal data are available. No cases of sensitization in humans have been reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Germ cell mutagenicity            | Synthetic Amorphous Silica: Not mutagenic in AMES Test. Negative in the unscheduled DNA synthesis assay. Negative in the chromosome aberration test in Chinese hamster ovary (CHO) cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Carcinogenicity                   | Synthetic Amorphous Silica: No evidence of carcinogenicity was observed in multiple animal species following repeated oral or inhalation exposure to amorphous silica. Similarly, epidemiology studies show no evidence of carcinogenicity in workers who manufacture amorphous silica.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Reproductive toxicity             | Synthetic Amorphous Silica: No effects on reproductive organs or fetal development have been reported in animal toxicity studies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| STOT - single exposure            | Specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| STOT - repeated exposure          | Synthetic Amorphous Silica: Repeated dose toxicity: oral (rat), 2 weeks to 6 months, no significant treatment-related adverse effects at doses of up to 8% silica in the diet.<br>Repeated dose toxicity: inhalation (rat), 13 weeks, Lowest Observed Effect Level (LOEL) = 1.3 mg/m <sup>3</sup> based on mild reversible effects in the lungs.<br>Repeated dose toxicity: inhalation (rat), 90 days, LOEL = 1 mg/m <sup>3</sup> based on reversible effects in the lungs and effects in the nasal cavity.<br>Repeated dose toxicity using SAS 400 m2/g: inhalation (rat), 90 days, fully reversible inflammation related to clearance processes following recovery period. NOAEC (lung) based on histopathology and inflammatory marker is 5 mg/m <sup>3</sup><br><br>Based on available data, a STOT-RE classification is not warranted. |
| Aspiration hazard                 | No data are available on the product itself.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|                       |                           |
|-----------------------|---------------------------|
| Other adverse effects | No information available. |
|-----------------------|---------------------------|

## 12. Ecological information

*Product, as formulated, has not been tested Information given is based on data on the components*

|                               |                                                                                                                                                                                                              |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecotoxicity                   | Synthetic Amorphous Silica: Fish (Brachydanio rerio) LC50 (96 h): > 10,000 mg/l; (Method: OECD 203). No acute toxicity to Daphnia with EL and EL <sub>50</sub> ranging from >1000 to 10,000 mg/L (OECD 202). |
| Persistence and degradability | The methods for determining biodegradability are not applicable to inorganic substances.                                                                                                                     |
| Bioaccumulation               | Not expected due to physicochemical properties of the substance.                                                                                                                                             |
| Mobility                      | Not expected to migrate.                                                                                                                                                                                     |
| Other adverse effects         | No information available.                                                                                                                                                                                    |

## 13. Disposal considerations

### Waste treatment methods

|                                     |                                                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Waste from residues/unused products | Dispose of in accordance with federal, state and local regulations. Dispose of waste in accordance with environmental legislation. |
| Contaminated packaging              | Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.           |

## 14. Transport information

|            |               |
|------------|---------------|
| DOT        | Not regulated |
| TDG        | Not regulated |
| MEX        | Not regulated |
| ICAO (air) | Not regulated |
| IATA       | Not regulated |
| IMDG       | Not regulated |
| RID        | Not regulated |
| ADR        | Not regulated |
| ADN        | Not regulated |

## 15. Regulatory information

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

#### International Inventories

|      |          |
|------|----------|
| TSCA | Complies |
|------|----------|

| Chemical name | CAS No | US TSCA Inventory listing | US TSCA inactive/active designation |
|---------------|--------|---------------------------|-------------------------------------|
|---------------|--------|---------------------------|-------------------------------------|

| Chemical name                         | CAS No      | US TSCA Inventory listing | US TSCA inactive/active designation |
|---------------------------------------|-------------|---------------------------|-------------------------------------|
| Synthetic Amorphous, Pyrogenic Silica | 112945-52-5 | Present                   | Active                              |

|               |          |
|---------------|----------|
| DSL/NDSL      | Complies |
| EINECS/ELINCS | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| KECL          | Complies |
| PICCS         | Complies |
| AICS          | Complies |
| TCSI          | Complies |
| NZIoC         | Complies |

**Note:**

Regulatory information is found under the general silica: CAS RN 7631-86-9

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances  
 TCSI - Taiwan Chemical Substance Inventory  
 NZIoC - New Zealand Inventory of Chemicals

US Federal RegulationsTSCA Section 12(b) Export Regulations

This product does not contain any components that are subject to TSCA 12(b) Export Notification.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

Clean Air Act Amendments of 1990 (CAA, Section 112, 40 CFR 82)

This product does not contain any components listed as a Hazardous Air Pollutant, Flammable Substance, Toxic Substance, or Class 1 or 2 Ozone Depletor.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, may contain trace levels one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302). < 0.5% ammonium hydroxide (CAS# 1336-21-6).

US State RegulationsCalifornia Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name                                        | New Jersey | Massachusetts | Pennsylvania |
|------------------------------------------------------|------------|---------------|--------------|
| Synthetic Amorphous, Pyrogenic Silica<br>112945-52-5 | -          | X             | X            |
| Ammonium hydroxide<br>1336-21-6                      | X          | X             | X            |

## 16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

Key literature references and sources for data used to compile the SDS

NIOSH Pocket Guide to Chemical Hazards, September 2005. "Silica, amorphous". DHHS (NIOSH) Publication No. 2005-149. National Technical Information Service, Springfield, VA. p. 277

Prepared By Cabot Corporation - Safety, Health and Environmental Affairs.

Revision date 17-Feb-2023

Revision Note Format update, Content review

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End of Safety Data Sheet