

# SAFETY DATA SHEET

Version 6.5  
Revision Date 01/28/2020  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Celite® 545  
Product Number : 22140  
Brand : SIGALD  
CAS-No. : 68855-54-9

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

Identified uses : Laboratory chemicals, Synthesis of substances

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

Company : Solvent Direct Inc.  
19300 S Hamilton Ave  
Gardena, CA 90248  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Specific target organ toxicity - repeated exposure, Inhalation (Category 1), H372

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

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)  
H372

Causes damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statement(s)	
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P314	Get medical advice/ attention if you feel unwell.
P501	Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Component	Classification	Concentration
<b>Diatomaceous earth (Calcined), respirable</b>		
CAS-No. 68855-54-9 EC-No. 272-489-0	STOT RE 1; H372 Concentration limits: 1 - 10 %: STOT RE 2, H373; > 10 %: STOT RE 1, H372;	>= 90 - <= 100 %
<b>Cristobalite, respirable</b>		
CAS-No. 14464-46-1 EC-No. 238-455-4	STOT RE 1; H372	>= 1 - < 5 %
<b>Quartz, respirable</b>		
CAS-No. 14808-60-7 EC-No. 238-878-4	STOT RE 1; H372	>= 1 - < 5 %

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

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

silicon oxides

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

**6.2 Environmental precautions**

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

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

## 7.3 Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Diatomaceous earth (Calcined), respirable	68855-54-9	TWA	20 Million particles per cubic foot	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
	Remarks	Based on impinger samples counted by light-field techniques. mppcf X 35.3 = million particles per cubic meter = particles per c.c		
		TWA	80mg/m <sup>3</sup> / %SiO <sub>2</sub>	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
		TWA	6 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		PEL	6 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
Cristobalite, respirable	14464-46-1	TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Suspected human carcinogen		
		TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Lung cancer Pulmonary fibrosis Suspected human carcinogen		
		Use ½ the value calculated from the count or mass formula for quartz.		
		TWA	0.05 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Quartz, respirable	14808-60-7	TWA	0.05 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		Substance listed; for more information see OSHA document 1910.1053		

		See Table Z-3 for the exposure limit for any operations or sectors where the exposure limit in § 1910.1053 is stayed or is otherwise not in effect.		
		TWA	10mg/m <sup>3</sup> / %SiO <sub>2</sub> +2	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
		<p>This standard applies to any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or is otherwise not in effect.</p> <p>Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:</p> <p>Aerodynamic diameter (unit density sphere): 2; Percent passing selector: 90 Aerodynamic diameter (unit density sphere): 2,5; Percent passing selector: 75 Aerodynamic diameter (unit density sphere): 3,5; Percent passing selector: 50 Aerodynamic diameter (unit density sphere): 5,0; Percent passing selector: 25 Aerodynamic diameter (unit density sphere): 10; Percent passing selector: 0 The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m<sup>3</sup> in the table for coal dust is 4.5 mg/m<sup>3</sup>.</p>		
		TWA	250mppcf / %SiO <sub>2</sub> +5	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
		<p>This standard applies to any operations or sectors for which the respirable crystalline silica standard, 1910.1053, is stayed or is otherwise not in effect.</p> <p>Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.</p> <p>The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.</p>		
		PEL	0.05 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		<p>The concentration and percentage of the particulate used for this limit are determined from the fraction passing a size selector with the following characteristics: Aerodynamic Diameter in Micrometers (unit density sphere).....</p> <p>Percent Passing Selector 0</p> <p>..... 100 1</p> <p>..... 97 2</p> <p>..... 91 3</p> <p>..... 74 4</p> <p>..... 50 5</p> <p>..... 30 6</p> <p>..... 17 7</p> <p>..... 9 8</p> <p>..... 5 10</p>		

		..... 1 see also Sections 1532.3 & 5204		
		TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Lung cancer Pulmonary fibrosis Suspected human carcinogen		
		TWA	0.05 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See Appendix A		

## 8.2 Exposure controls

### Appropriate engineering controls

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

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

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

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### **Body Protection**

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

### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Control of environmental exposure**

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

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- |   |                               |
|---|-------------------------------|
| a) Appearance                                   | Form: powder<br>Colour: white |
| b) Odour  | No data available             |
| c) Odour Threshold                              | No data available             |
| d) pH   | No data available             |
| e) Melting point/freezing point                 | No data available             |
| f) Initial boiling point and boiling range      | No data available             |
| g) Flash point                                  | ( )No data available          |
| h) Evaporation rate                             | No data available             |
| i) Flammability (solid, gas)                    | No data available             |
| j) Upper/lower flammability or explosive limits | No data available             |
| k) Vapour pressure                              | No data available             |
| l) Vapour density                               | No data available             |
| m) Relative density                             | No data available             |
| n) Water solubility                             | 0.0037 g/l at 20 °C (68 °F)   |
| o) Partition coefficient: n-octanol/water       | No data available             |
| p) Auto-ignition temperature                    | No data available             |
| q) Decomposition temperature                    | No data available             |
| r) Viscosity                                    | No data available             |
| s) Explosive properties                         | Not explosive                 |

t) Oxidizing properties No data available

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong acids, Hydrogen fluoride

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - silicon oxides

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Cristobalit, respirable)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

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**SECTION 12: Ecological information**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Other adverse effects**

No data available

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**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: Transport information****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**SECTION 15: Regulatory information****SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Chronic Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

Diatomaceous earth (Calcined), respirable	CAS-No. 68855-54-9	Revision Date 1989-08-11
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Diatomaceous earth (Calcined), respirable	CAS-No. 68855-54-9	Revision Date 1989-08-11
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**New Jersey Right To Know Components**

Diatomaceous earth (Calcined), respirable	CAS-No. 68855-54-9	Revision Date 1989-08-11
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Cristobalite, respirable	14464-46-1	2007-03-01
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Quartz, respirable	14808-60-7	1989-08-11
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**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**SECTION 16: Other information****Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Solvent Direct Inc. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.solventdirect.com](http://www.solventdirect.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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