

## Material Safety Data Sheet

Version 5.0

Revision Date 05/08/2012

Print Date 01/05/2014

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Celite® 545

Product Number : 22140

Brand : Sigma-Aldrich

Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832

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Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

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2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Target Organ Effect, Irritant

Carcinogen, Target Organ Effect, Irritant

## Target Organs

Lungs

## GHS Classification

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 3)

Specific target organ toxicity - repeated exposure, Inhalation (Category 2)

## GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

H373

May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statement(s)

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## HMIS Classification

Health hazard: 2

Chronic Health Hazard: \*

Flammability: 0

**Physical hazards:** 0  
**NFPA Rating**  
**Health hazard:** 2  
**Fire:** 0  
**Reactivity Hazard:** 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** Causes eye irritation.  
**Ingestion** May be harmful if swallowed.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component		Classification	Concentration
Diatomaceous earth (Calcined)			
CAS-No.	68855-54-9	Eye Irrit. 2; STOT SE 3; STOT RE 2; H319, H335, H373	-
EC-No.	272-489-0		
Silicon dioxide			
CAS-No.	14464-46-1	STOT RE 2; H373	30 - 60 %
EC-No.	238-455-4		
Quartz			
CAS-No.	14808-60-7	STOT RE 2; H373	1 - 5 %
EC-No.	238-878-4		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

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**4. 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. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

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

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**5. FIREFIGHTING MEASURES**

**Conditions of flammability**

Not flammable or combustible.

**Suitable extinguishing media**

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

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - silicon oxides

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

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

**Environmental precautions**

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

**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.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Diatomaceous earth (Calcined)	68855-54-9	TWA	20 Million particles per cubic foot	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
Remarks	Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques. mppcf X 35.3 = million particles per cubic meter = particles per c.c			
Silicon dioxide	14464-46-1	TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
Remarks	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 formulae for quartz.			
		TWA	0.05 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Quartz	14808-60-7	TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Suspected human carcinogen			
		TWA	0.025 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
	Lung cancer Pulmonary fibrosis Suspected human carcinogen			

**Personal protective equipment****Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

**Eye protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and 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.

**Hygiene measures**

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

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	solid
Colour	no data available

**Safety data**

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

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**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

no data available

**Conditions to avoid**

no data available

**Materials to avoid**

Strong acids, Hydrogen fluoride

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - silicon oxides

Other decomposition products - no data available

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Oral LD50**

no data available

**Inhalation LC50****Dermal LD50**

no data available

**Other information on acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: 1 - Group 1: Carcinogenic to humans (Silicon dioxide)

IARC: 1 - Group 1: Carcinogenic to humans (Quartz)

IARC: A4 - Not classifiable as a human carcinogen (Diatomaceous earth (Calcined))

3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diatomaceous earth (Calcined))

NTP: Known to be human carcinogen (Silicon dioxide)

NTP: Known to be human carcinogen (Quartz)

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

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

Inhalation - May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.

### Signs and Symptoms of Exposure

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

### Synergistic effects

no data available

### Additional Information

RTECS: Not available

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## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

no data available

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## 13. DISPOSAL CONSIDERATIONS

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## 15. REGULATORY INFORMATION

### OSHA Hazards

Target Organ Effect, Irritant Carcinogen, Target Organ Effect, Irritant

### SARA 302 Components

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

### SARA 313 Components

SARA 313: 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**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Silicon dioxide	14464-46-1	2007-03-01
Quartz	14808-60-7	2007-03-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Silicon dioxide	14464-46-1	2007-03-01
Quartz	14808-60-7	2007-03-01
Diatomaceous earth (Calcined)	68855-54-9	1989-08-11

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Silicon dioxide	14464-46-1	2007-03-01
Quartz	14808-60-7	2007-03-01
Diatomaceous earth (Calcined)	68855-54-9	1989-08-11

**California Prop. 65 Components**

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer.	14464-46-1	1988-10-01
Silicon dioxide		
Quartz	14808-60-7	1988-10-01

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**16. OTHER INFORMATION****Text of H-code(s) and R-phrase(s) mentioned in Section 3**

Eye Irrit.	Eye irritation
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

**Further information**

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