



SAFETY DATA SHEET

Date of Issue: 23.07.2024

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Section 1 - Identification

Company Name : ECP Limited
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
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Emergency phone number : 0800 243 622 (24 hours)

Product Name	Celite 545
Product Code	545
CAS No.	68855-54-9

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand.

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.

Carcinogenicity: Category 1

Specific target organ toxicity – repeated exposure: Category 1

Signal Word (s) : **DANGER**

Hazard Statement (s)

H350 May cause cancer

H372 Causes damage to organs (Lungs) through prolonged or repeated exposure by inhalation

Pictogram (s)

Health hazard



Precautionary Statement – Prevention

- P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
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.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement – Response

P308+P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell.

Precautionary Statement – Storage

P405 Store locked up.

Precautionary Statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

Chemical Characterization

Powder

Information on Composition

Product contains respirable crystalline silica.

Ingredients

Name	CAS	Proportion
Flux Calcined Diatomaceous Earth (DE)	68855-54-9	100 %
Cristobalite	14464-46-1	<50 %
Quartz [Silica Crystalline]	14808-60-7	<4 %

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First-aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (0800 764 766)

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment.

Unsuitable Extinguishing Media

Use of water spray when fighting fire may be inefficient.
Do not scatter spilled material with high pressure water streams.

Hazards from Combustion Products

Non combustible material.

Specific hazards arising from the chemical

This product is non combustible. However heating can cause expansion or decomposition leading to violent

rupture of containers.

Decomposition Temperature

Not available

Precautions in connection with fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

Section 6 - Accidental Release Measures

Emergency Procedures

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Slippery when wet. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7 - Handling and Storage

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

Section 8 - Exposure Controls and Personal Protection

Occupational Exposure Limits (OEL)

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
Quartz [Silica Crystalline]	NZ OELs List	TWA	0.1	MG/M3	(respirable dust) (6.7A)
Cristobalite	NZ OELs List	TWA	0.05	MG/M3	(respirable dust), 6.7A

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure, then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial

Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Other Information

No exposure standards have been established for this material. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

The exposure limits for particulates not otherwise classified are as follows: Particulates TWA 10 mg/m³ (inhalable) TWA 3 mg/m³ (respirable)

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Source: Workplace Exposure Standards and Biological Exposure Indices.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Powder	Appearance	Fine white powder
Colour	White - off white	Odour	Odourless
Decomposition Temperature	Not available	Boiling Point	> 2230 °C
Solubility in Water	Insoluble	Specific Gravity	2.3
pH	6 - 10 (10% slurry in water)	Vapour Pressure	Not available
Vapour Density (Air=1)	Not available	Odour Threshold	Not available
Viscosity	Refer to Section 9: Kinematic Viscosity and Dynamic Viscosity	Volatile Component	Not available
Partition Coefficient:n-octanol/water	Not available	Flash Point	Not applicable
Flammability	Non combustible material.	Auto-Ignition Temperature	Not available
Explosion Limit - Upper	Not applicable	Explosion Limit - Lower	Not applicable
Explosion Properties	Not available	Oxidising Properties	Not available
Kinematic Viscosity	Not applicable	Dynamic Viscosity	Not applicable

Melting/Freezing Point	> 1300 °C		
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Section 10 - Stability and Reactivity

Reactivity

Refer to Section 10: Possibility of hazardous reactions

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong oxidising agents. Hydrofluoric acid.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes.

Silicon tetrafluoride (SiF₄) will form upon contact with hydrofluoric acid.

Possibility of hazardous reactions

Reacts with incompatible materials.

Hazardous Polymerization

Not available

Section 11 - Toxicological Information

Toxicology Information

No toxicity data available for this material. The available acute toxicity data for the ingredient/s is/are given below.

Acute Toxicity - Oral

Quartz [Silica

Crystalline]LD50: 50

mg/m³

Acute Toxicity - Inhalation

Flux Calcined Diatomaceous Earth

(DE)LC50 (Rat): > 2.6 mg/L/4h

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of dusts may irritate the respiratory system. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure.

Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema and asthma.

Skin

Skin contact may cause mechanical irritation resulting in redness and itching.

Eye

Eye contact may cause mechanical irritation. May result in mild abrasion.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Repeated or prolonged contact may cause allergic reactions in very susceptible persons.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

May cause cancer. Classified as a known or presumed human carcinogen.

Respirable crystalline silica is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure by inhalation.

Aspiration Hazard

Not expected to be an aspiration hazard.

Section 12 - Ecological Information

Ecotoxicity

No ecological data available for this material.

Persistence and degradability

Not readily biodegradable.

Mobility

Not expected to adsorb on soil.

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

The disposal of spilled or waste material must be done in accordance with applicable local and national regulations. Product Disposal:

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. The product should be rendered non-hazardous before being sent to a licensed landfill facility.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Notice. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed of through a commercial waste collection service. Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

Section 14 - Transport Information

Transport Information

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Special Precautions for User

Not available

UN Number

None Allocated

Proper Shipping Name

None Allocated

Hazard Class

None Allocated

Packing Group

None Allocated

UN Number (Air Transport, ICAO)

None Allocated

IATA/ICAO Proper Shipping Name

Not dangerous for conveyance under IATA code

IATA/ICAO Hazard Class

None Allocated

IATA/ICAO Packing Group

None Allocated

IMDG UN Number

None Allocated

IMDG Proper Shipping Name

Not dangerous for conveyance under IMO/IMDG code

IMDG Hazard Class

None Allocated

IMDG Packing Group

None Allocated

IMDG Marine pollutant

No

Transport in Bulk

Not available

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand. Group Standard: Additives, Process Chemicals and Raw Materials (Carcinogenic) Group Standard 2020.

HSNO Approval Number

HSR002512

Tolerable exposure limit (TEL)

Not available

Environmental exposure limit (EEL)

Not available

Certified Handler

Not available

Tracking

Not available

Controlled Substance Licence Requirements

Not available

Montreal Protocol

Not Listed

Stockholm Convention

Not Listed

Rotterdam Convention

Not Listed

Agricultural Compounds, including Veterinary Medicines (ACVM)

Not available

Global Inventory Status

Country/Region Inventory	Status Description	Country/Region Inventory	Status Description
New Zealand (NZIoC)	All components of this product are listed on the Inventory or exempted.		

Section 16 - Any Other Relevant Information

Literature References

Hazardous Substances and New Organisms Act (1996).

Health and Safety at Work (Hazardous Substances) Regulations (2017). Workplace Exposure Standards and Biological Exposure indices.

Agricultural Compounds and Veterinary Medicines Act 1997. Montreal Protocol on Substances that Deplete the Ozone Layer. Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Transport of Dangerous goods on land NZS 5433.

Recommendations on the Transport of Dangerous Goods – Model Regulations. Dangerous Goods Emergency Action Code List.

Hazardous Substances (Safety Data Sheets) Notice (2017). (EPA Consolidation) Assigning a hazardous substance to a group standard.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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